The NATIONAL GEOGRAPHIC MAGAZINE

Vol. XIX OCTOBER, 1908 No. 10

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Cork. Illustrated.

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Conservation League of America.

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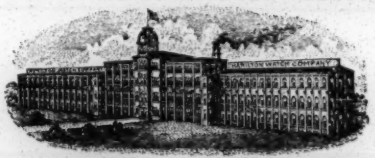

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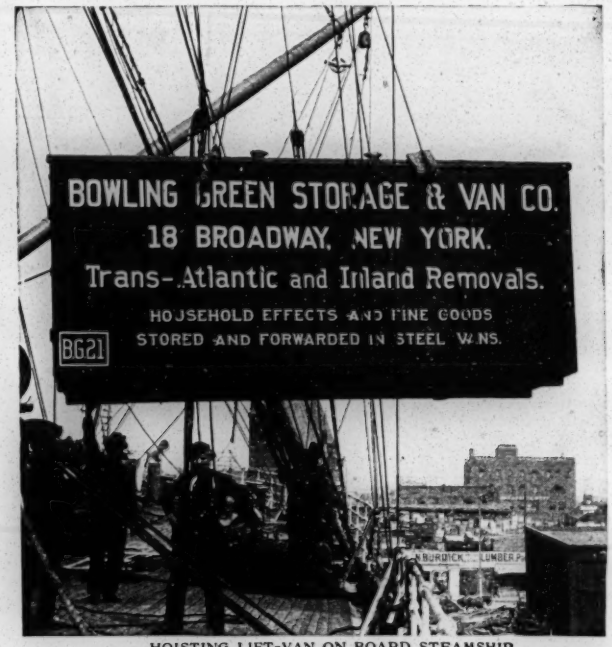
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VOL. XIX, NO. 10 WASHINGTON OCTOBER, 1908

THE NATIONAL GEOGRAPHIC MAGAZINE

CUZCO, AMERICA'S ANCIENT MECCA

BY HARRIET CHALMERS ADAMS

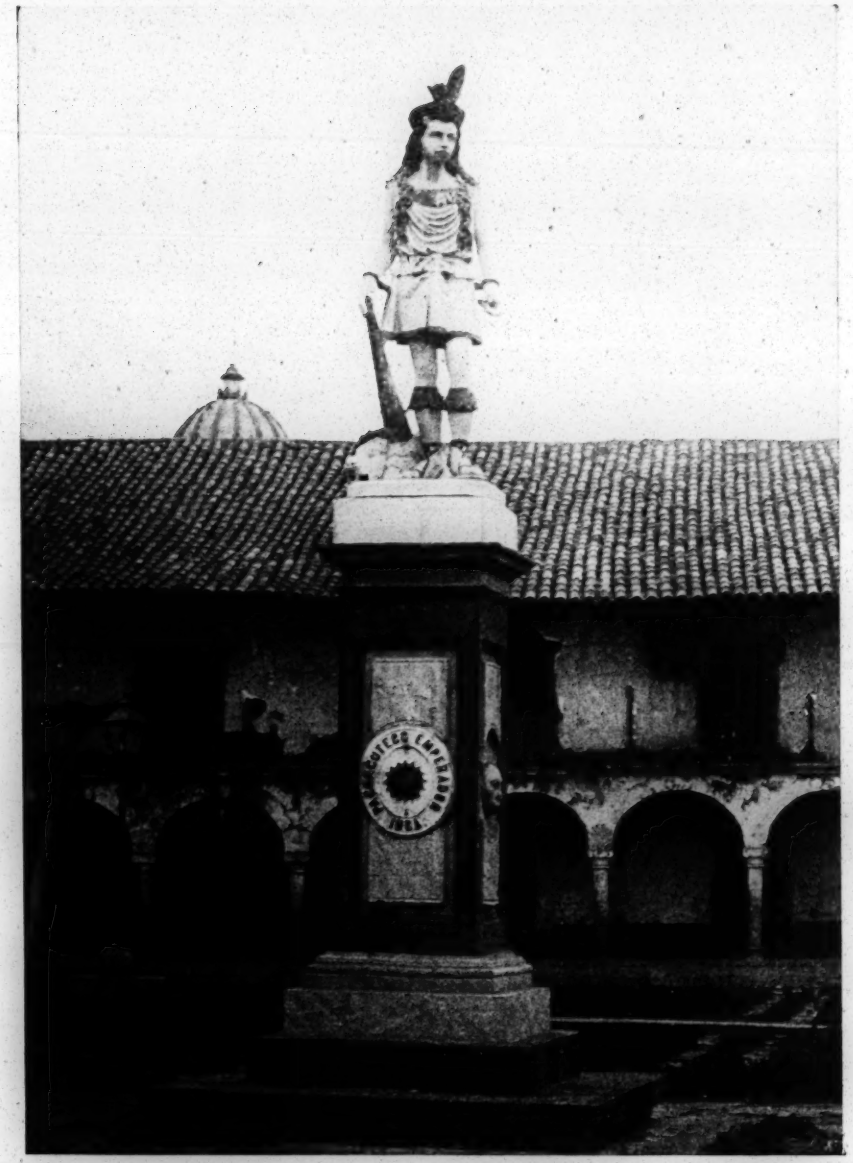
AUTHOR OF "ALONG THE OLD INCA HIGHWAY," "WONDERFUL SIGHTS IN THE ANDEAN HIGHLANDS," ETC.

WE all have a Mecca. It is New York, for one; for another, Paris. Some people long to reach the Holy Land. Since childhood I had journeyed in my dreams on the long pilgrimage to Cuzco, and when I at last found myself in the Andean country, on that portion of the old Inca highway stretching from Lake Titicaca to the "City of the Sun," I knew that dreams sometimes come true.

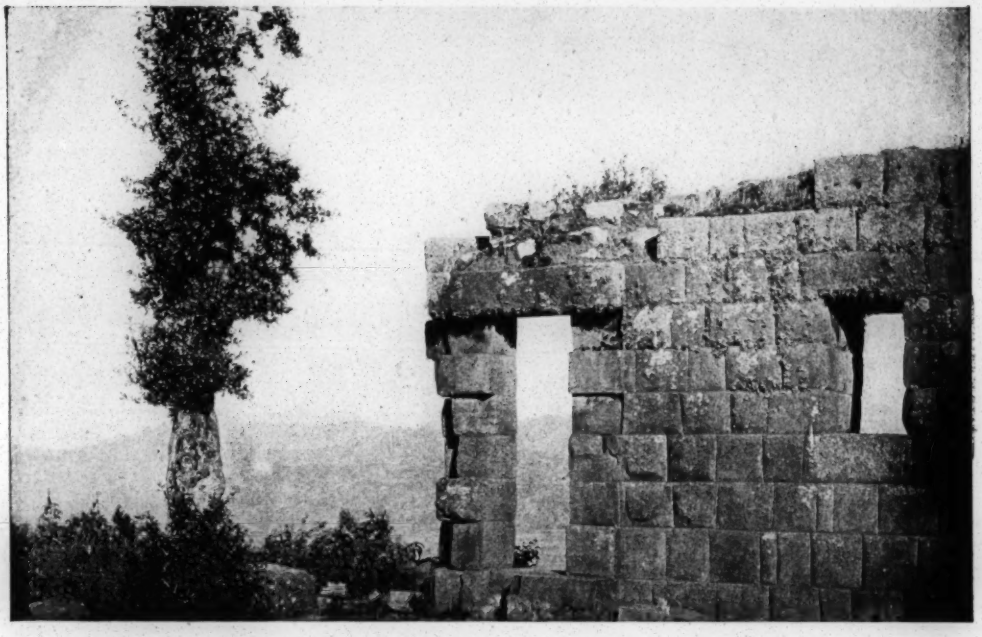
Through legendary and historical lore, I recalled the many wayfarers who had gone before me—Manco Capac and Mama Occla, his wife, missionaries of the Sun, on their way to found the Sacred City; Inca Emperors, returning from conquests far to the east and south; Spanish *conquistadores,* bearing the sword and the cross; brave warriors of the revolutionary days when Peru threw off the Spanish yoke; countless soldiers of the civil wars; and, in contrast to these pageants, the simple, unchanging mountaineers, driving townward their laden llamas, bowing their heads in worship of Cuzco the Sacred, as their Mecca came into view. The last link in that branch of the Southern Railway of Peru which will connect Cuzco with the coast is nearing completion, but I am glad that I entered Cuzco in the old way. For hundreds of years it has been the goal of the Andean people, who still journey miles on foot over the bleak highlands to reach its shrines and its mart.

Come and stand with me on the hill of Sacsahuaman, overshadowing the city, and look down through my Memory's field-glass. The old town, you see, lies just at our feet at one end of an oblong valley bordered by treeless mountains—a golden valley with cultivated patches on the hillsides shading into brown. This is the central vale in a group of fertile highland basins eleven thousand feet above the sea, sheltered by mountain walls from the bitter wind which sweeps along the elevated table-land of Peru. Situated in the heart of the former Inca Empire, "Cuzco" signifies "navel" or "center" in *Quichua,* the indigenous tongue.

The buildings, you notice, are Moorish in architecture, with slanting roofs of weather-stained reddish-brown tile. The paved courts which they encompass and the carved wooden balconies overhanging the narrow streets are typical of the Colonial period. Those open spaces



STATUE OF MANCO CAPAC, THE INCA EMPEROR WHO FOUNDED CUZCO



REMAINS OF THE PALACE OF THE FIRST INCA, MANCO CAPAC, THE FOUNDER OF CUZCO

throughout the town are plazas, and facing the largest one are the Cathedral and the Church of the Jesuits; the latter has a most beautiful façade. It is certainly a city of belfries. Many of the sweet-toned bells you hear were brought over from Spain in the sixteenth century.

Not a vehicle is in sight. Those snail-like green objects on the streets are burros, ears and all hidden by the fodder they are carrying. Look at these strange little animals coming up the hill. "Bus-ss ss! Bus-ss ss!" the driver is shouting. That means, "Get up, old slow pokes! It's a long way home across the mountains!" The queer little creatures are llamas, Peruvian camels, and the homespun bags which they carry, panier-wise, were woven from their own wool. The great white mushrooms down there in the main plaza are really circular awnings. Under them the market women sit, surrounded by their wares. Only at this distance can we enjoy the many picturesque little streams flowing through the streets. When we descend we find that they are the open sewers of a city which rivals Constantinople in unpleasant odors—in fact, I believe Cuzco holds the world's record.

Those villages beyond the town are San Sebastian and San Geronimo. There is a legend hereabouts that people of royal blood were allowed to retire to these hamlets after the Conquest. I doubt it. It seems far more likely that the Spaniards did away with most of the Inca princes and married the unwilling princesses. If that great snow peak beyond the hills could speak we would know the true story; it is Mount Azungato, rising from the majestic *Cordillera de los Andes,* and it stood there even when a pre-Incasic people inhabited this land.

From up here on the heights Cuzco looks old, with hardly a modern touch, but to realize its great antiquity we must go down to the streets or turn and study the hoary fortress crowning the hill on which we stand.

I shall never forget my entrance into

A MOUNTAIN TRAIL OVERLOOKING THE VALLEY OF CUZCO

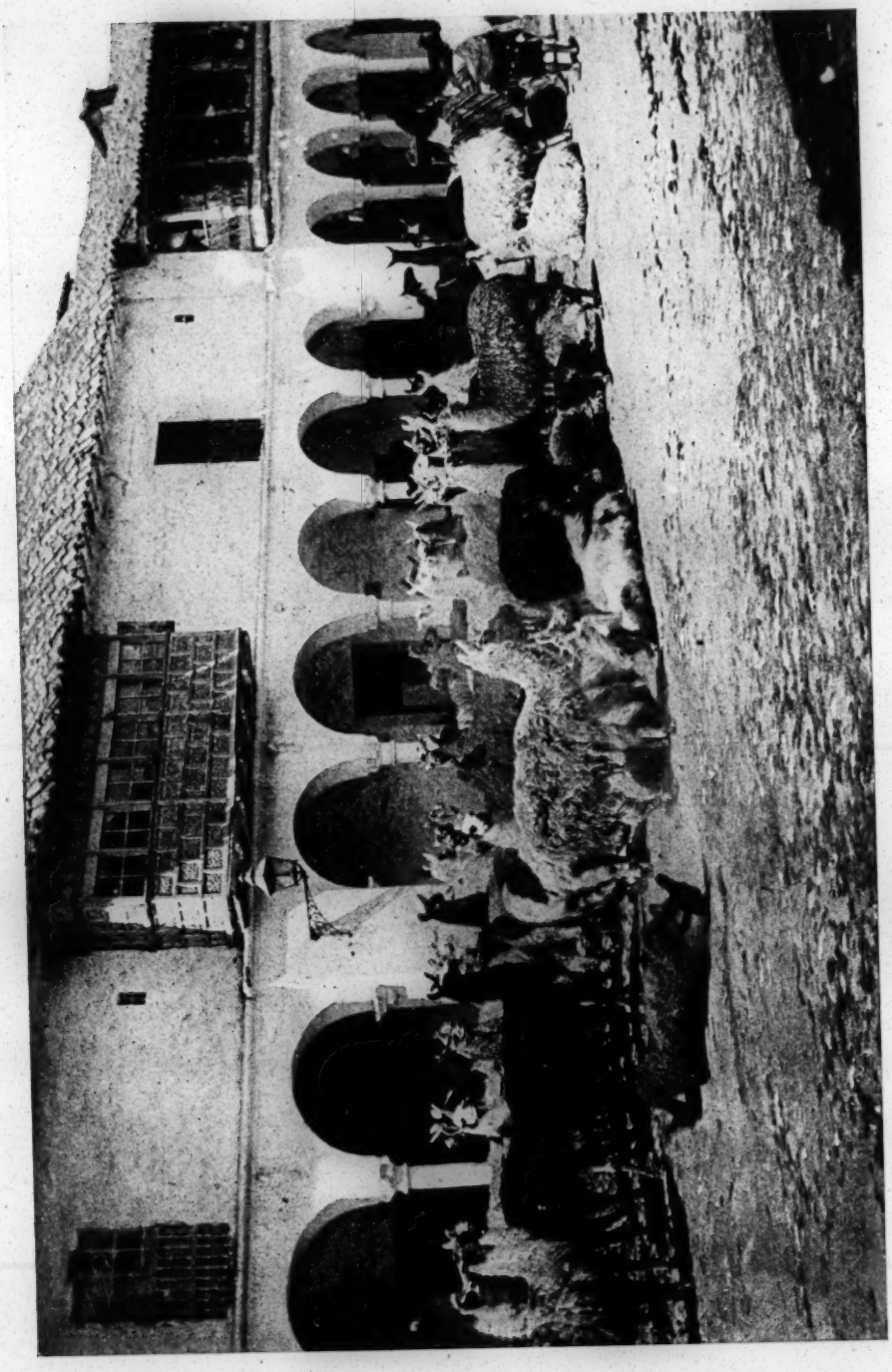
Cuzcò. Arriving at the coach station in a suburb of the city, Mr Adams and I were informed by our *cholo* (half-breed) driver that vehicles were not allowed "on the streets of the metropolis." We argued in vain, and twilight fell as we trudged along the rocky road to town, loaded down with innumerable bags, boxes, and cameras. We surely had little to look forward to in an Andean hotel.

A British traveler tells of a time when he was arrested on entering a highland town of Peru, mistaken for an embezzler who had escaped from Lima. He spent some days in the local jail before his identity was established. Then he was released, with many apologies, and allowed to proceed to the hotel. After looking the place over hurriedly he returned to the jail, and asked permission to occupy his old quarters during the remainder of his stay.

There are several hostelries in Cuzco, and we "took a chance" at the "Hotel del Comercio," facing the Plaza de Armas. It had the reputation of being the best hotel in the town, but we paid only two *soles* (one dollar) each a day for room and board. The court-yard was strewn with rubbish and the room assigned to us had canvas partition walls extending only half way to the ceiling—quite a neighborly idea! The room was dirty and cold and the less said about the table the better. However, we put up with discomforts without complaint, finding so much in compensation.

It is such an interesting and picturesque old city. Cartegena, Colombia, has second place with me among the many romantic cities of Latin America, but *Cartegena de los Indies* has not the prehistoric interest of Cuzco and lacks its unusual types.

The morning after our arrival a rag-



A CUZCO STREET SCENE SHOWING OLD SPANISH BALCONY: NOTE THE LLAMAS ROLLING IN THE DUST

NEAR CUZCO

ged, unkempt *Mozo* brought chocolate and bread up to our room. This early meal is called *desayuno*. Cuzco chocolate is rich and sweet, with a dash of cinnamon, and is made from native cocao. As is the custom throughout the southern republics, breakfast (*almuerzo*) was served at half-past eleven, and dinner (*comida*) at six. We went daily to the market to buy fruit, and although the city is situated two miles above sea-level, its market is filled with tropical and semi-tropical fruits from the Santa Ana and other valleys in the lowlands. Burros, the little slaves of Latin America, bring the produce to town over the steep mountain trail. Among the many varieties of fruit for sale in the market are bananas, oranges pineapples, figs, paltas (alligator pears), sapotas, pomegranates, and chirimoyas.

This market place is one of the unique features of the city. Here the country people gather, selling to the merchants (usually women), who sit on the ground under shelters, their wares spread out on blankets. The ladies of the town come early to buy the day's provisions, followed by their servants carrying native baskets. The *señoras* have sweet, pale faces and large dark eyes. Their heads and shoulders are draped in black *mantos*, their black skirts trailing. They are of Spanish blood, but many have an Indian strain, and all can speak the *Quichua* language, taught them by their nurses and now used when conversing with the servants.

The costume of the Indians is most picturesque. Both men and women are bare-legged and wear sandals of llama hide. The men are clothed in knee-breeches and woolen ponchos; the women in low-cut blouses and short skirts. Both sexes wear great cart-wheel hats, a rich blue in shade, lined with red, and

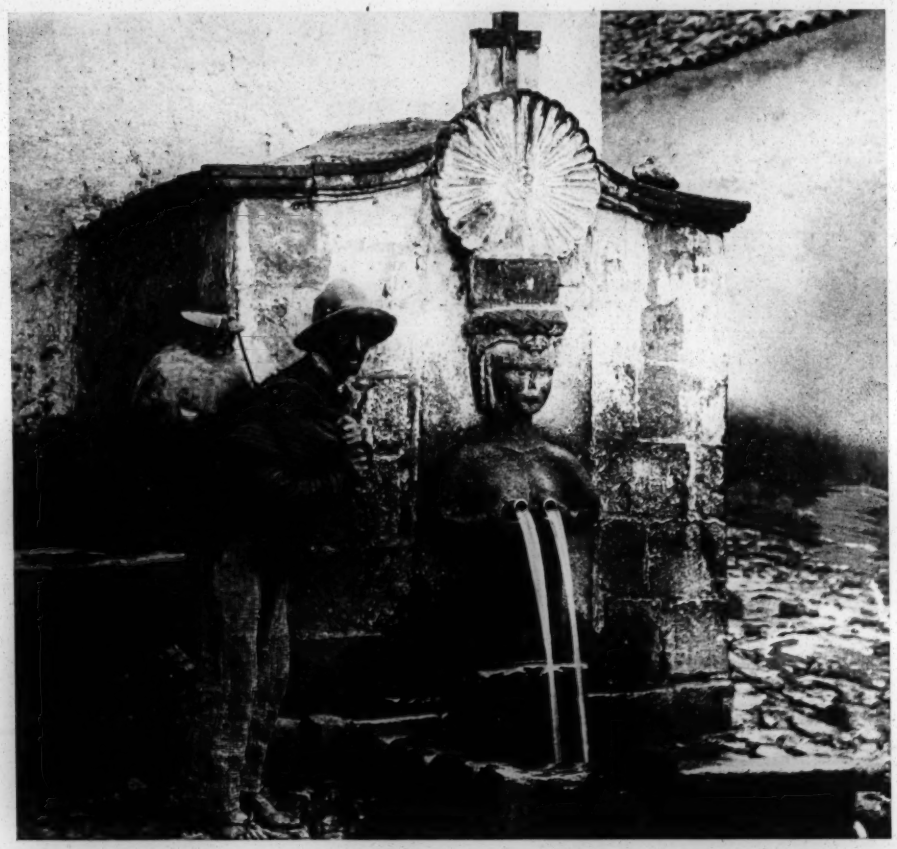
FAMILIAR FACES IN CUZCO

trimmed with gilt or silver braid. The poor creatures have a sorrowful expression and really have little to "cheer over" excepting on the numerous *fiesta* days; then they drink large quantities of *chicha,* made from fermented corn, and become very hilarious.

The decorated street shrines, church processions, and the like are little more than a game to these simple Andean children. It is doubtful whether any form of religion could have as deep a meaning to them as had the ancient worship of the sun to their ancestors. Few, I believe, can see farther than the gorgeously decked altars, the pageant of marching Indian bearers, carrying great platforms on their shoulders, supporting images of the Virgin and the Saints. These images are carried from the many churches to the Cathedral, where they remain for a visit of several weeks before being returned to their respective homes. The original Virgin of the city was presented to Cuzco by Charles V of Spain. The figure is adorned with gold and precious stones and when carried in the procession stands on a pedestal of solid silver.

Only "a good bringing up" saved me from walking off with the Inca relics in one of the churches, ornaments wrought by the conquered Peruvians to beautify their Temple of the Sun. The present church of Santo Domingo stands on the foundation of this venerable temple, and throughout the old part of the city are many remains of the ancient capital in massive walls, doorways, aqueducts, fountains, and terraces. Most imposing are the walls.

I recall one street that is especially narrow; little more than an alley, in fact; the sidewalks are merely flagstones. On either side rise mighty walls, forming the foundations of Spanish structures. These walls are twenty feet in height, composed of massive stones, a dark slate color, irregular in size, rough on the surface. On all sides not exposed the stones were accurately cut, fitting perfectly. No mortar was used, yet the walls have stood through the centuries and will outlive the sixteenth century buildings which rise above them. The stones vary in length from one to eight feet, in thickness from six inches to two feet, the

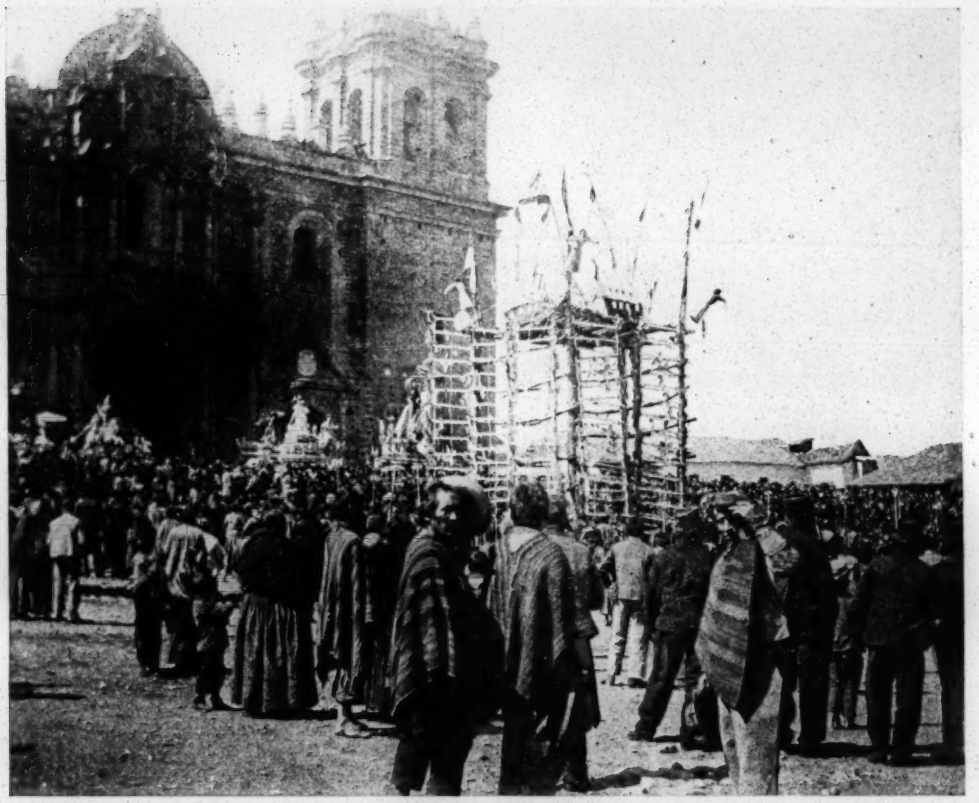


A FOUNTAIN IN CUZCO

larger at the bottom, graduating as they rise. In comparison the Spanish edifices look crude and decayed. There is a strength and dignity in this work of the ancients. As I walked through the narrow street I felt very insignificant. The cyclopean stone-work well suits its environment. In the shadow of the mighty Andean mountains the Moorish style of architecture, transplanted from the sunny valleys of southern Spain, looks very much out of place. The most remarkable fact concerning these stones is that the quarries were many miles from Cuzco. Without iron or steel to shape them, with no device now known to us to aid in their transportation, these huge rocks were carried great distances by men over steep mountain trails.

Much larger than any of the stones to be seen in the city are those in the fortress of Sacsahuaman. Dominating the valley, the hill on which this fortress stands rises to a height of about seven hundred feet. In *Quichua,* "sacsa" means "gorge thyself;" "human" is "falcon" or "hawk." A noted American traveler who visited Cuzco in the sixties interprets the name somewhat like this: "Advance, O mine enemy! Dash thyself against the rocky and impregnable fortress, if thy wilt; the hawks will gather up thy fragments."

We climbed up the hill by a zigzag trail, very steep and rocky, past the ancient terraces of Colcompata, on which are the remains of the palace of Manco Capac, the first Inca. On the brow of the hill now stands a great cross, a reminder to the people below that the days



THE PLAZA, CUZCO, SHOWING A PROCESSION FROM THE CATHEDRAL

Each church sends its saint to the Cathedral for Corpus Christi. Here the saints remain one week, being then returned to their home church, after visiting other friendly saints

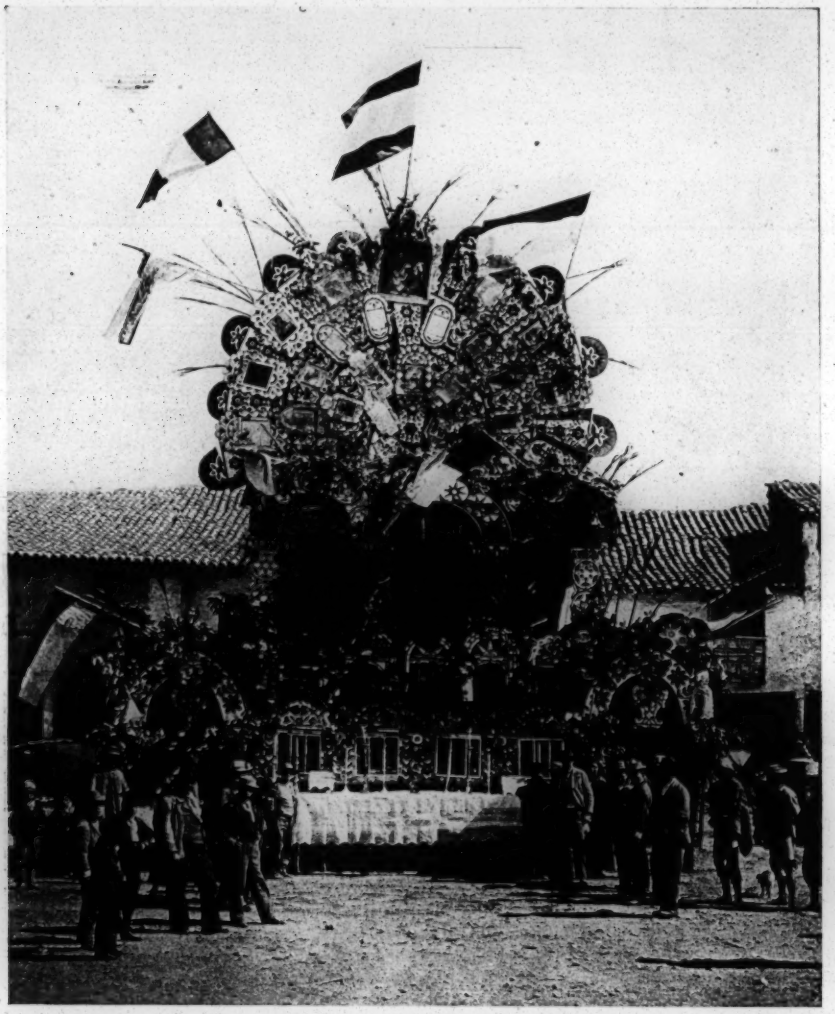
of sun-worshiping are past. Formerly three gigantic rows of masonry encircled the hill at its summit; now these walls are broken in many places. The greater portion of the stones facing the city were rolled down the hill and used in building the Spanish churches. The strongest enforcement was on that side of the hill farthest from the city. Here there is an open plain covered with a field of wheat. The citadel facing this tableland is composed of walls averaging 18 feet in height, built in over twenty salient and retiring angles. One of the rocks in the lowest wall is fully 16 feet in height and weighs many tons. In no part of the world is there an ancient building or fortification to equal Sacsahuaman in solidity and beauty of execution. Yet with the coming of the Spaniards it did not fulfill the glory of its name.

The story of that great contest has been immortalized by Prescott. As I stood in the door-way where Juan Pizarro, a brother of the conqueror, fell, and looked toward the precipice over which the defeated Inca noble hurled himself when he saw that his enemies were victorious, I realized how accurate is the great historian's description of a place which he had never seen.

On the plain facing the fortress is a mass of rock called the Rodadero and on the summit a series of seats rise one above the other. These are cut out of the hard rock and the place is called "The Seat of the Inca." According to tradition, the Inca and his nobles came here

THE ORIGINAL VIRGIN OF CUZCO IN THE CHURCH OF BEBEN

This saint when used in processions is carried on a solid silver pedestal, and was sent to Cuzco in the sixteenth century by Charles V of Spain

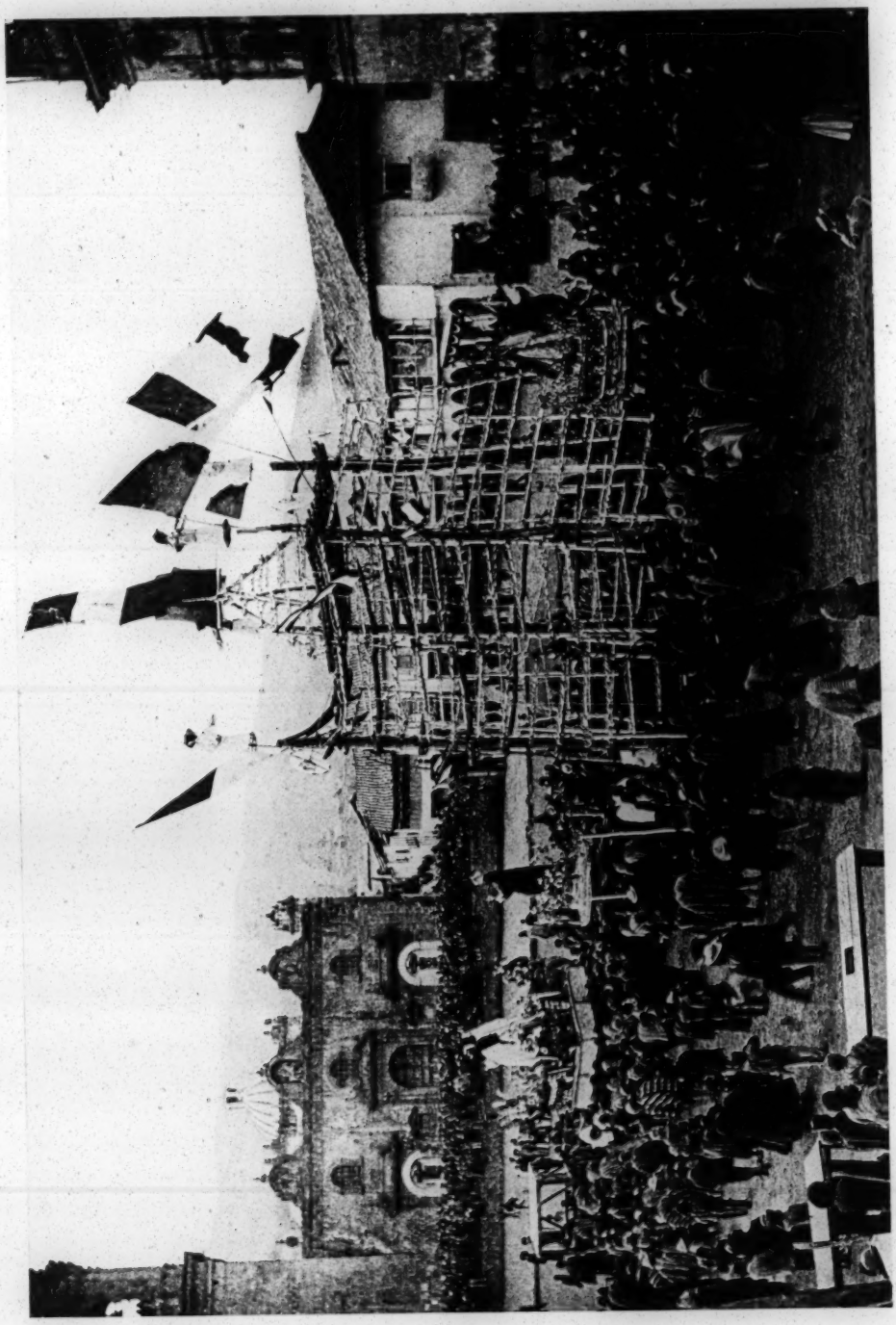


A STATIONARY SHRINE IN A CUZCO STREET

On feast days hundreds of these shrines adorn the streets and are visited by processions of priests, followed by Indians full of the native drink *Chicha*. These shrines are often simply bed spreads with spangles.

to watch the building of the fort, but legends and opinions of archæologists do not agree. It is a question whether Sacsahuaman was built by Inca rulers following Manco Capac or by a pre-Incasic people between the Tiahuanaco and Inca periods.

At this late day there is a newly awakened desire among the Peruvians to preserve and cherish within their own domain the relics of their forefathers. A law has been passed to the effect that no more Inca treasures shall leave the country. There is a private museum in Cuzco, which we visited. The Colonial exhibit is most interesting, including swords of the *conquistadores,* silver stirrups, trappings, and ornaments of all kinds, so plentiful in vice-regal days when thousands of the conquered Indians slaved



A RELIGIOUS PROCESSION IN CUZCO

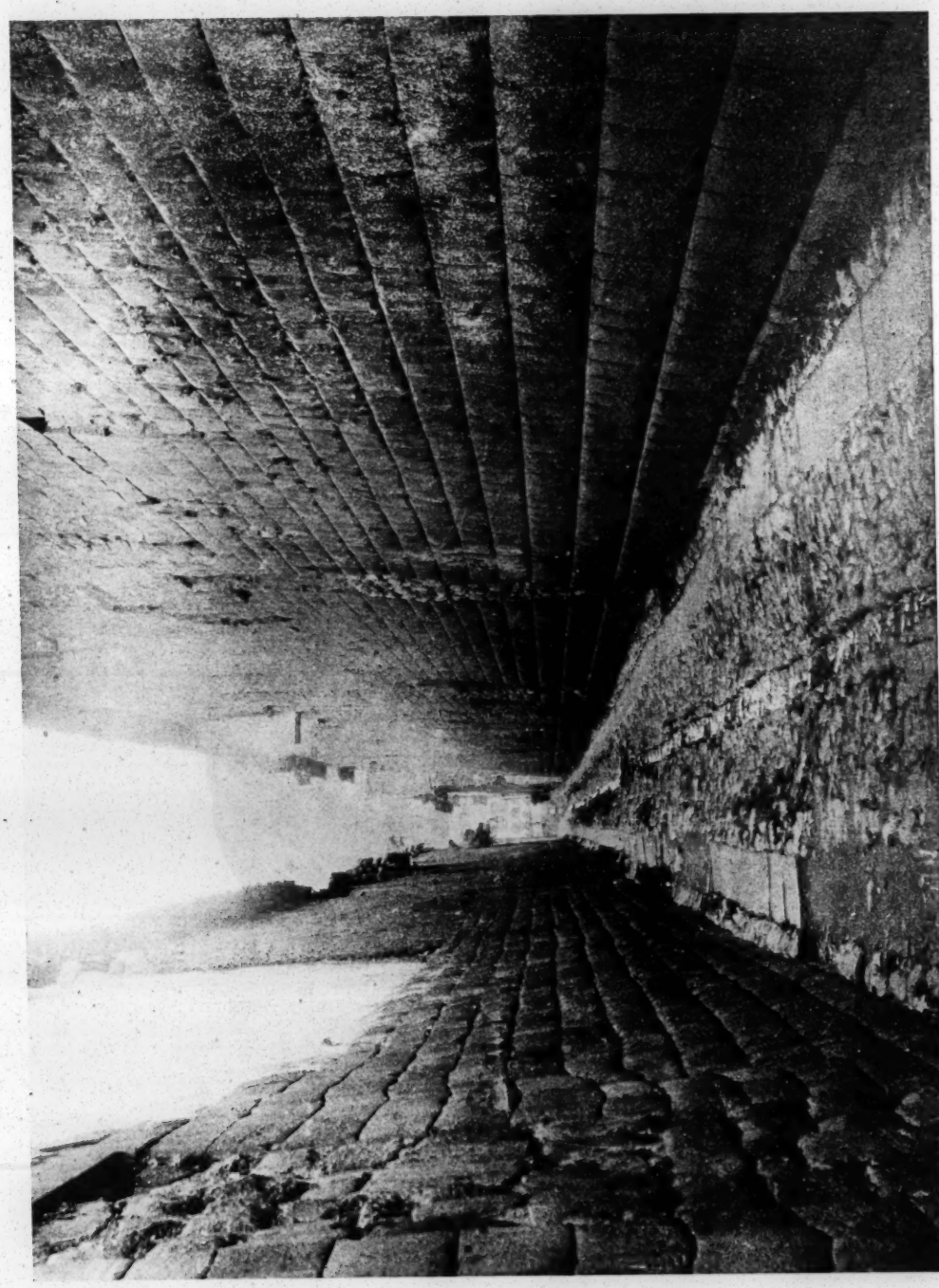
TWELVE-SIDED STONE IN CUZCO, IN OLD INCA WALL

Note how stones are fitted together without mortar (see page 675)

for the Spaniards in the famous silver mines of Potasi. The carved chairs and chests, tapestries, and altar cloths recalled to us the days when Cuzco was the seat of Roman Catholic power, the proud capital of the Colony.

For many years following the conquest it was the most important city in Peru. Here lived the people of wealth and culture. The Spaniards, however, neglected the roads built under Inca régime, and as the highways fell into decay the difficulties of the long journey across the mountains to the coast increased. Gradually Cuzco's power slipped away, and Lima became the capital and pulse of the country, as it has ever since remained. Today comparatively few Limanians visit the southern highlands, and until the oncoming of the railroad Cuzco lay in a Rip Van Winkle sleep.

Overshadowing the Museum's relics of early Spanish days are the Inca treasures, which tell us of a people who left no written history. Until the arrival of priestly Spanish scholars, *Quichua* was an unwritten language. We learn much of the race, however, from the objects found in the tombs, since their dearest possessions were buried with them. There are implements of the war and the chase; *quipus* or fringes used in counting; prayer-sticks; musical instruments (reed-pipes, flutes, drums, bells, rattles, and cymbals); gold, silver, and copper ornaments; *chumpe* (copper and gold) implements used in the quarries; many varieties of pottery, including immense

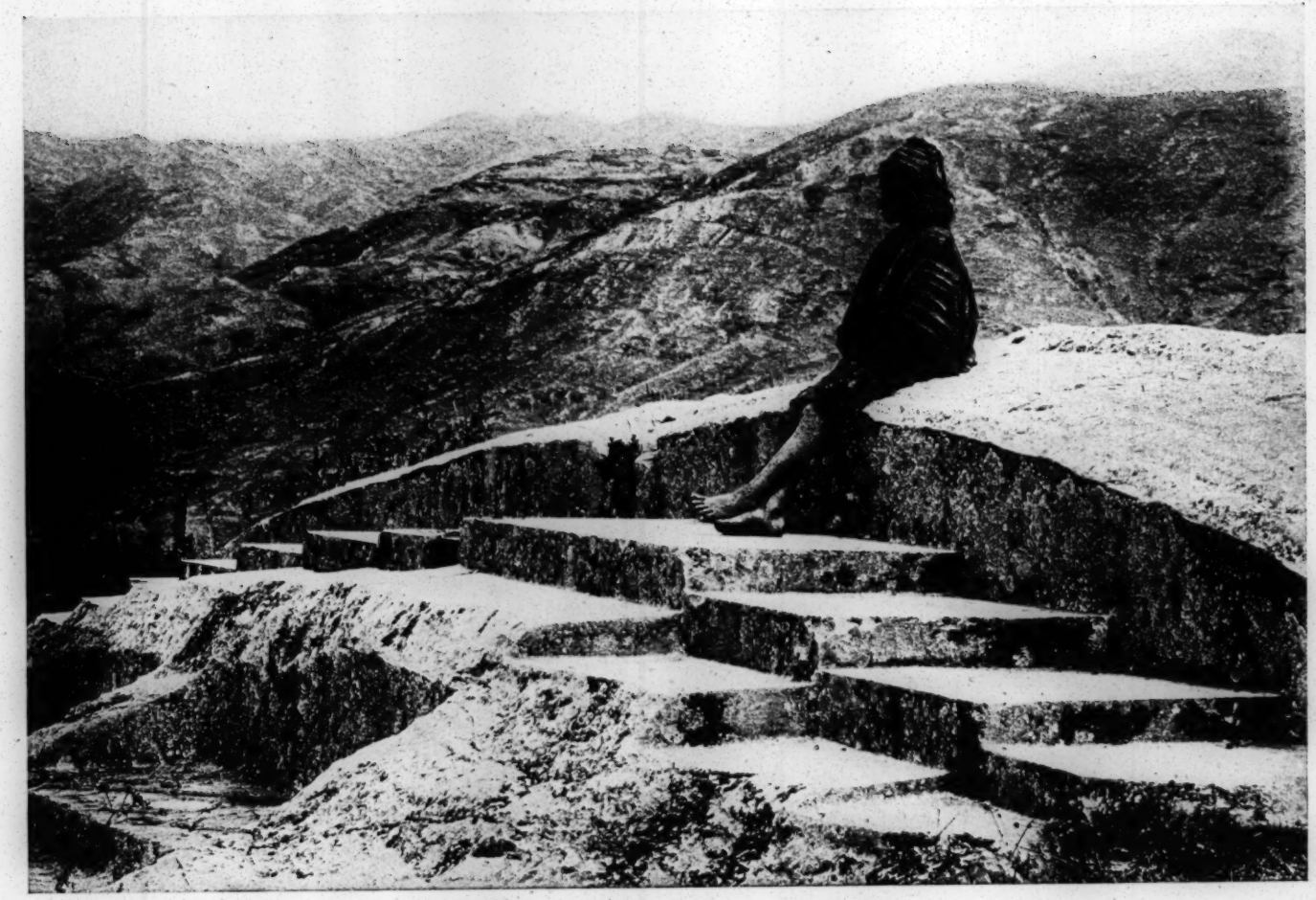


A STREET OF CUZCO, SHOWING THE ANCIENT INCA WALLS UPON WHICH DWELLINGS HAVE BEEN BUILT

A VIEW OF THE FORTRESS OF SACSAHUAMAN, BUILT BY THE INCA RULERS TO PROTECT CUZCO (SEE PAGE 677)

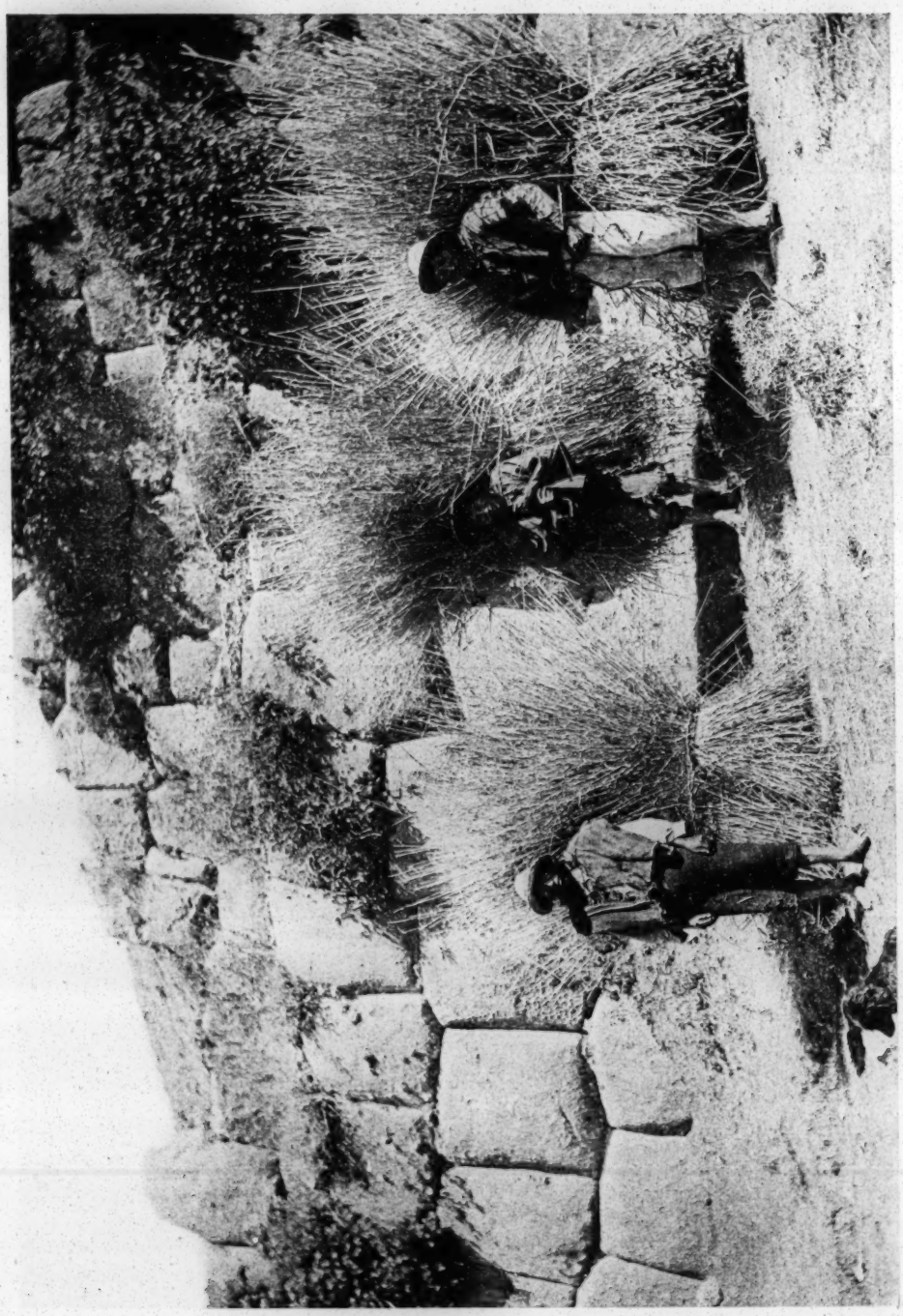
A VIEW OF ONE OF THE SALIENTS OF THE FORTRESS OF SACSAHUAMAN

Showing the enormous blocks of stone used in its construction. These great stones were brought from quarries miles away in the mountains



SEATS OF THE INCAS OVERLOOKING SACSAHUAMAN, CUZCO, CARVED OUT OF THE SOLID ROCK

They are supposed to have been occupied daily by the rulers and suites during the construction of the fortress



GATHERING FUEL

QUICHUAS: LAST OF THE INCAS

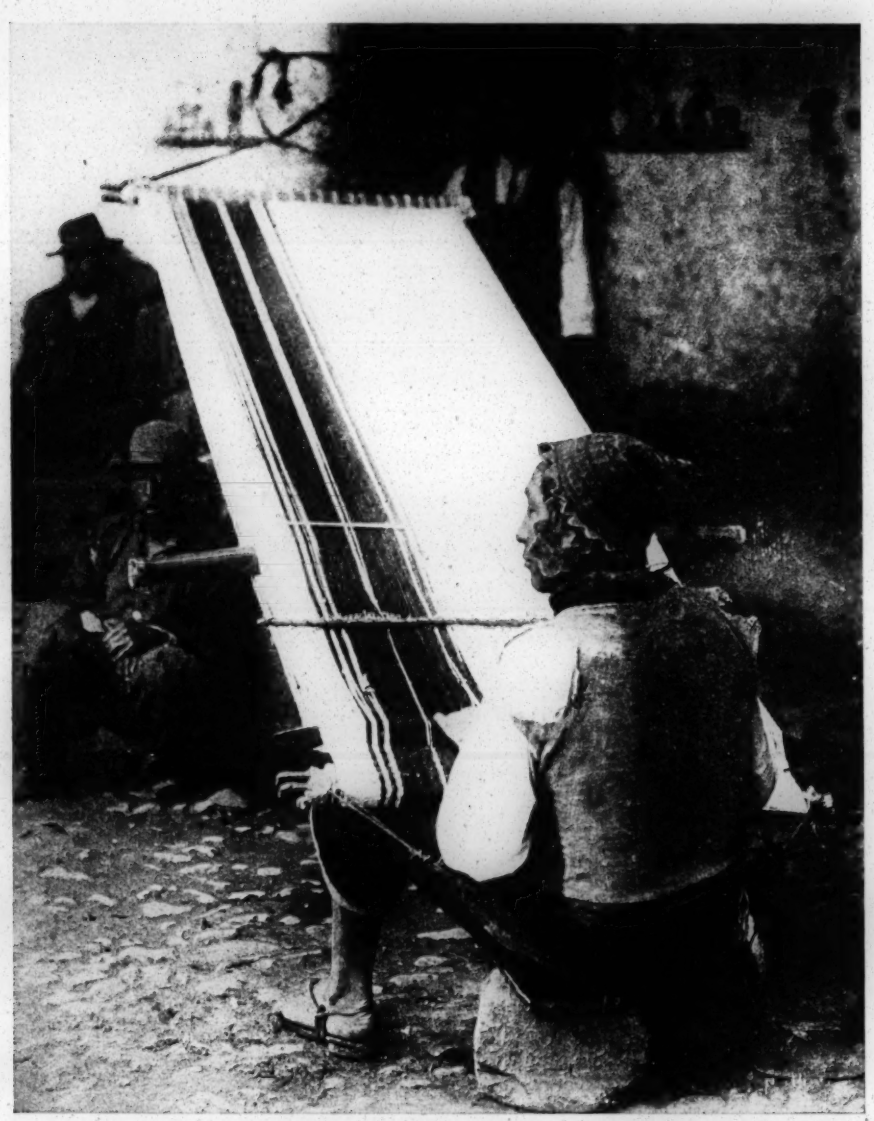
jars for holding *chicha* and water; workboxes containing materials and implements used in weaving; bags and mats; most beautiful of all, exquisitely woven garments and altar cloths.

The ancient Peruvians highly developed the art of weaving. They raised cotton and used the wool of the llama and other animals of its kind. Vicuña wool, being especially fine, was employed in the best materials. The designs in the weaving and on the pottery are in themselves descriptive of the people. The other day, in the American Museum of Natural History in New York, I saw an artist busily engaged in copying the unique design on a *poncho* worn, perhaps, by an Inca ruler. No modern work can excel many specimens left by the Peruvians.

The Andean Indians of today, both men and women, spin as they walk along the highway, using implements resembling those found in ancient graves. Many still weave their own garments, using crude looms. Their work, sad to relate, in no way shows the art of their progenitors, and they prefer the brilliant colors produced by aniline dyes to the soft shades popular long ago. The dreaded time is coming when they will forsake their picturesque homespun altogether for gaudy materials "made in Germany."

It is a simple matter for the visiting American to see why the Germans get the trade. In Cuzco, as in other out-of-the-way places in South America, they study the needs and tastes of the people. If the descendants of the Incas yearn to wear pea-green and royal purple, the Kaiser's commercial travelers plan that they may.

Few travelers visit the attractive old city—a German, Briton, or American now and then in the interest of trade, an occasional student. At the time of our visit there was only one other *gringo* in town, an American engineer, with the



A PONCHO WEAVER OF CUZCO

exception of the few foreign residents (German merchants and British missionaries). A traveling circus and a theatrical company, each composed of Spanish and Peruvian artists, were in the town. The day after our arrival we were greeted (in Spanish) by a gentleman whom we met in the hotel dining-room, with the startling question, "Do you belong to the circus or the theater?" As the ladies of Cuzco do not wear short skirts, kahki jackets, high boots, and sombreros, I told Mr. Adams it was "up to me."

We attended both the circus and the theater, but found neither one amusing. The best entertainment afforded us was by the natives themselves on the streets

and in their homes. Of course, I am referring to the Indians and *Cholos,* who form the greater part of the city's population. There are charming and cultured people in Cuzco, as in all other Latin American cities.

One day we met an alcalde, who had just arrived in town, having journeyed five days on foot from the Paucartambo Valley. He was sitting by a fountain in one of the plazas, surrounded by a group of admirers. Not he, however, but the huge staff he held, was the object of their interest. An alcalde is a petty official, and in the remote highland valleys these men are usually full-blooded *Quichuas,* the position often descending from father to son. The insigna of office is a staff, taller than the man himself, usually of wood, banded with silver or copper. This particular alcalde had a staff of solid silver surmounted by a great knob. On this was an engraved inscription, which, translated from the Spanish, read: "Presented to Sinchi Sarayacu by Señora Doña Isabella de Gomez, April 1st, 1793." Evidently the unkempt, bare-legged gentleman, busily engaged in chewing coca leaves while describing his journey, came of a distinguished family in the eyes of his audience.

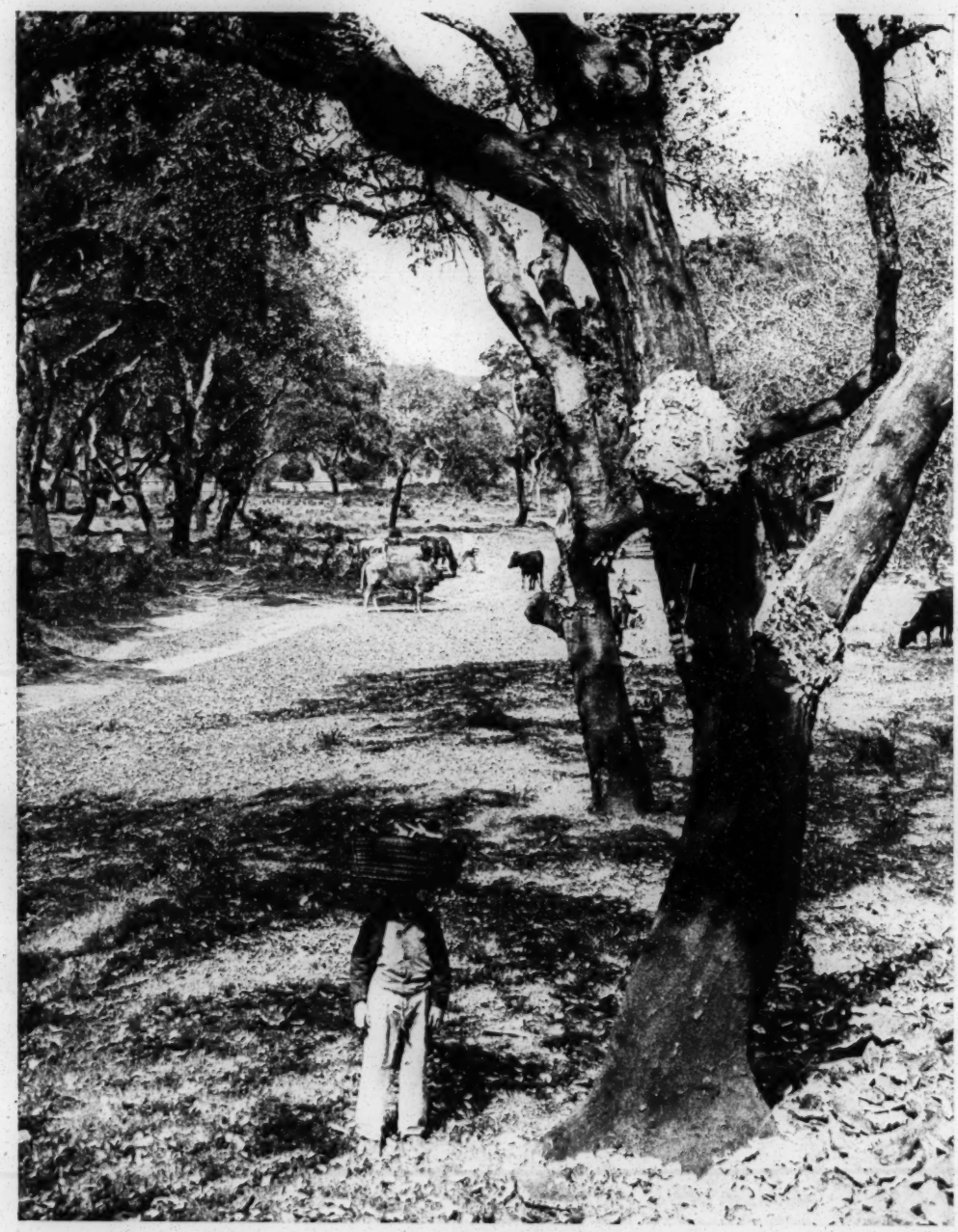
All of the highland Indians, men, women, and children, masticate dried coca leaves, which are brought up from the lowlands. They mix the leaves with lime, which extracts the cocaine. Coca is to the *Quichua* both friend and enemy. It stupefies him, but relieves him from cold, hunger, and fatigue. We traveled for days in the saddle over the dreary highlands with an Indian guide jogging along on foot ahead of us. Save for the bag containing coca and the gourd holding lime, he was unequipped for the journey, yet he never seemed tired or hungry and, although scantily clad at a high elevation, did not mind cold or altitude.

No savage or semi-civilized Indians in the Americas interest me as do the *Quichuas.* Theirs has been such a heart-rending history. Today they are hopeless after years of oppression, deadened by coca, woefully unclean in person; but of vicious traits they seem to have none. They are gentle in manner, fond of one another, patient and uncomplaining, speaking a language both beautiful and expressive. In the valleys beyond Cuzco we were alone with them for weeks, far from any Spanish-speaking people, and felt that we were perfectly safe. In the country places they impressed us as very sad. The *yaravis,* which they sang or played on their reed pipes at evening time, had a tragic note.

The republic's progress during the past ten years has been remarkable, and there is a great future for a country so splendidly endowed with agricultural and mineral wealth. In Cuzco, however, I seemed always to be looking backward. The evening before we left the city I climbed once again to the summit of Sacsahuaman and stood by the cross, looking down on the valley. It was half in shadow, but the city's many towers were ruddy with the glow of the setting sun; yet in the picture of my conjuring the church towers disappeared.

One temple alone rose in worship of the departing Sun-god. In the great square of Huacapata hundreds of people knelt, as the Mohammedans kneel today, at the evening hour with their faces turned toward Mecca. Here the worshipers faced the glowing west. The Inca himself, standing in the doorway of the temple, surrounded by his nobles, bowed his *llautu* crowned head. Ynti, the Sun, was departing, leaving his children in darkness, but Quilla, his spouse—the silvery Moon—would guard them till the morning. Night was falling on a contented and a prosperous people.

What blessing has European civilization brought to them which they did not already enjoy? What have they not suffered in the name of the cross which surmounts the hill? ?



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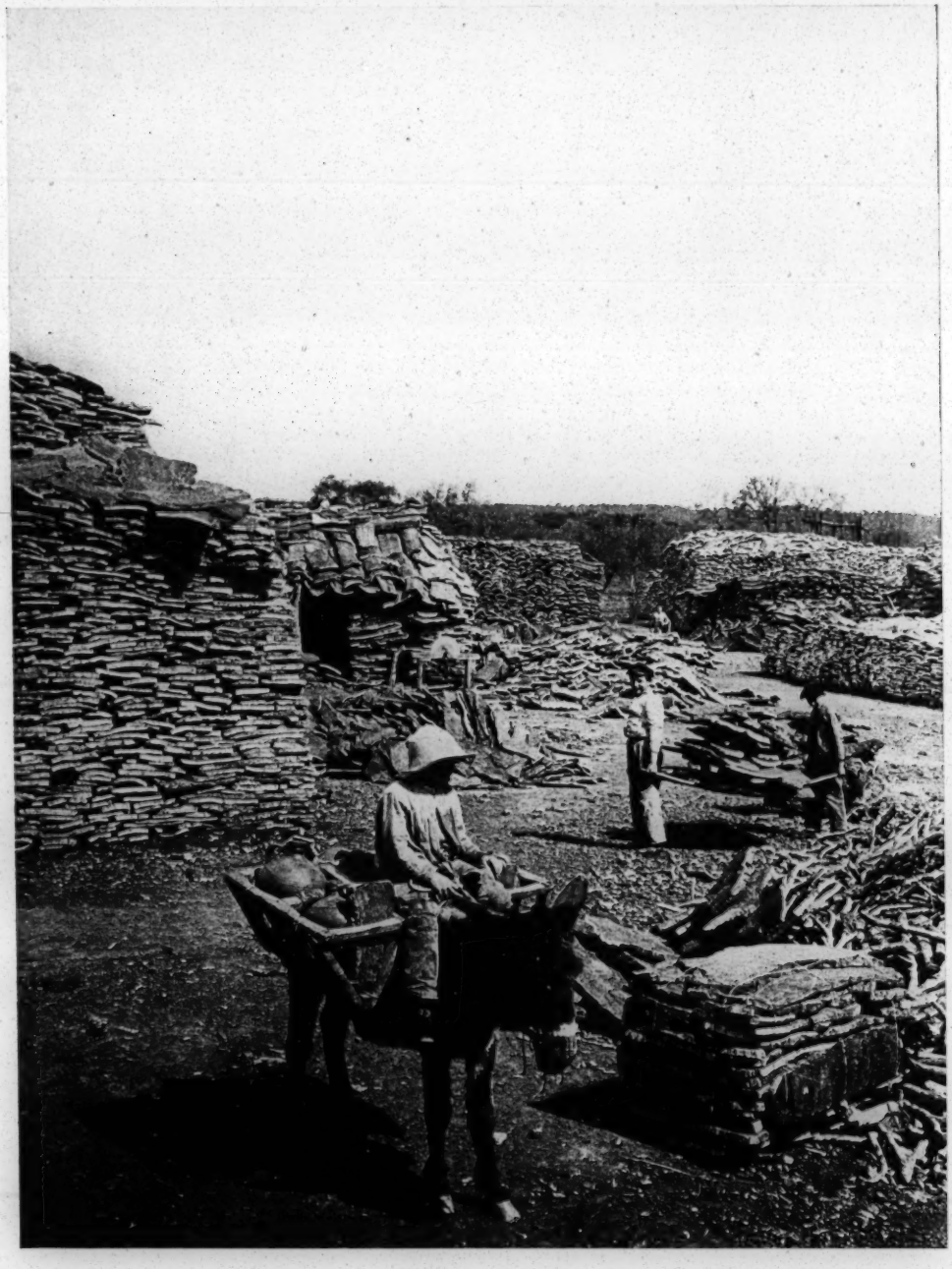
CORK OAKS PARTIALLY STRIPPED OF THE VALUABLE BARK: ALMORAIMA, SPAIN

Photo and Copyright by Underwood & Underwood, New York

BOILING THE GREEN BARK—LIFTING A BATCH FROM THE VAT: THE CORK INDUSTRY AT ALMORAIMA, SPAIN



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THE STOCK-YARD AT ALMORAIMA, SPAIN, WHERE PILES OF BARK AWAIT CURING AND BALING

CORK

CORK is the outer layer of bark of an evergreen species of oak. The tree is cultivated principally in Portugal and Spain. When the tree is about 15 or 17 years old the first stripping takes place, but this first crop is too coarse in texture to be of use except in tanneries or for rough purposes. The second stripping, obtained 8 or 10 years later, is also too coarse for finer uses than for floats for nets. With each stripping the quality improves and is continued at intervals of 8 years until the tree is 150 years old.

During the last several years the French have begun to exploit the natural cork of Algeria, where they have found about 1,000,000 acres occupied by the cork oak. The largest forests are in northeastern Algeria and contain some trees with a circumference of more than 30 feet. Messrs Thomas H. Kearney and Thomas H. Means, of the U. S. Department of Agriculture, give the following description of the cork oak industry:

Only natural forests are exploited in Algeria, no attempt ever having been made to establish artificial plantations (as in Spain and Portugal).

In bringing a forest of cork oak into condition for exploitation the first step is to remove the layer of old or "male" cork which forms under natural conditions. This operation, which requires considerable skill, is performed in the spring when the sap is beginning to rise. The subsequent yield depends largely upon the way in which this work of "demasclage" is done. It is advisable to put back into place the layer thus removed, fastening it around the trunk by means of wire and leaving it there for about two years; otherwise the trees are very liable to injury from dry, hot winds and from fire. Wrapping the trees in this way also prevents a second development of the worthless male cork.

The new cork which now begins to form is alone of commercial value. It is deposited at the rate of from 0.04 to 0.12 inch annually, and the first harvest is taken when the layer of cork has reached a thickness of about 1 inch. Thereafter the cork is removed every eight or ten years, the later crops yielding a better product than the earlier ones. The expense of each harvest from a single tree is about 2 cents.

Individual trees differ greatly in the rate at which cork is formed. As a rule, the best product is that which develops most slowly. Rapidly growing cork is more abundantly veined with loose tissue, which diminishes its value. The cork is sometimes seriously injured on the tree by the ravages of ants, which build galleries in it. The tree has also other insect enemies.

The cork, when cut, rolls up into tubes of the size of the trunk from which it was taken. It is first pressed out into sheets, then boiled, and finally the crust of bark is removed by scraping. Boiling increases the bulk by about one-fifth and renders the cork more elastic.

An acre of cork oak in full production yields a net annual revenue of about $2. The product from a single tree is worth from 4 to 10 cents a year after all expenses are deducted.

ACROSS WIDEST AFRICA*

An Account of the Country and Peoples Seen During a Journey Across Africa from Djibuti to Cape Verde

By A. Henry Savage Landor

The following article has been abstracted by the Editor from a very noteworthy contribution to geography, "Across Widest Africa," by A. Henry Savage Landor, recently published by Charles Scribner's Sons. The journey described in this work was over 8,500 miles in length and occupied 364 days. "Pleasure," says Mr Landor, "was its sole object. No white person accompanied the author, who bore the entire cost of the expedition."

In this brief summary it is possible to give only a few of the many strange sights seen by Mr Landor during his remarkable trip through what is probably the most disease-ridden and inhospitable section of the Dark Continent. The illustrations are all from actual photographs taken by Mr Landor, and are republished here, together with the extracts from the book, through the courtesy of the author, by whom the entire work is copyrighted.

THE start was made from Djibuti, on the Gulf of Aden, Janaury 6, 1906. The most attractive of all the people in French Somaliland are possibly the Somali. They are quite of a superior type to any I found on my journey across Africa from east to west, except the Senegalese, on the West Coast. Although not superior in intelligence, they are superior to the Senegalese in physical appearance. They are tall, thin, and well proportioned, with well-chiseled limbs and features, a good arched nose, with rather finely modeled nostrils, and the lips, although developed, are not so offensively full as with most of the negro tribes of the central zone of Africa.

Their skin is of a smooth, delicate texture, with no superabundance of oily excretion, as in most negroid races, and their active life gives them a wiry, supple appearance quite devoid of extra flesh. They are of a nervous temperament, extremely sober and moral—when not demoralized by European ways—dignified and faithful in a high degree to their leaders. There is no bravado about them, but they are somewhat cruel by nature. They can endure hardships silently and stand impassive in case of danger.

Of the great number of men I employed during my journey across Africa it was only a Somali—a French Somali—who remained faithful to the very end. notwithstanding the severe hardships and sufferings which he had to endure. (See illustration, page 695.)

The Greeks, who were very numerous all over Abyssinia, have a wonderful facility for learning languages quickly. They also thoroughly understand the ways of the natives, and they are patient to a degree where a European would lose

* Across Widest Africa: An Account of the Country and People of Eastern, Central, and Western Africa, as seen during a twelve-months' journey from Djibuti to Cape Verde. By A. Henry Savage Landor. With 160 illustrations from photographs and one large map showing route. 2 vols. Pages 396, 508. 7 by 9½ inches. Imported by Charles Scribner's Sons, New York.

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ADEM, THE AUTHOR'S FAITHFUL SOMALI, WHO ACCOMPANIED HIM FROM DJIBUTI TO CAPE VERDE

his temper and use his fists or his feet freely. So that these Greeks and Armenians, although doing business in a small way, seem to manage to carry away all the trade of the country; also it must be said that the natives are less suspicious of these men than they are of European traders, in whom they never put absolute trust.

Adis-Ababa, Menelik's capital. cannot be called a city in the proper sense of the word. There are thousands of white tents about, but few permanent houses, and it really impresses one more as a big encampment than a town. On the spurs of the hills to the right as one approaches the place one sees the modest buildings of the British Legation; then a grander one where the Russian minister lives.

Everything in Adis-Ababa is referred to the Emperor. It is quite amazing what an amount of mental work Menelik must go through daily. While attending to most important political affairs, matters of the most trivial character are brought to him for assent. This is practically

what happens every minute of the day at the palace: Menelik, with his head bandaged in a white *shash*, as it is called, a sort of silk kerchief, and with a cheap French felt hat with a large brim far back upon his skull, is pondering with some foreign minister over some political problem of great importance to his country—let us say, the projected railway between the sea and Adis-Ababa. The Emperor is deeply absorbed in thought.

Enters a servant, who whispers in the Emperor's ear, regardless of the presence of the foreign representative of a great European country:

"Your Majesty, the carpenter wants some more nails to mend the veranda."

"Here are the keys. Give him twenty nails," says the Emperor. "If he needs more, come again to tell me."

The Emperor is again in deep thought. Intruder number two comes up and whispers that a mule has escaped from the palace.

The Emperor jumps down from his throne—a high packing-case covered with Oriental carpets—slips quickly into the shoes which he has discarded, and hastens to his telescope, scanning the country all around with it, in order to see whether the missing animal can be detected upon the hills near Adis-Ababa.

No signs being apparent of the Emperor's wish to resume the conversation about the railway—the escaped mule being much more important to him than all the railways in the world—the foreign minister vainly attempts to drive the Emperor again to his throne. Attention is called to the interrupted discussion. The Emperor on his side endeavors to induce the minister to come and look for the mule.

The subject of the railway is again tactfully approached, and the conversation, thinks the minister, is proceeding satisfactorily, when a fresh disturber rushes in to inform His Majesty that the machinery in the mint adjoining the palace has stopped; so down goes the Emperor to see what has gone wrong, and he cannot be removed from the workshop until the machinery is set going again. He then calls for pieces of lump silver and gold, and with his own hand amuses himself in striking fresh coins, which he then places in his pocket.

Menelik, as a man, is certainly one of the most charming, thoughtful men I have ever met, a fact one appreciates a great deal when one remembers that his people—I am speaking of the Anharas, or pure Abyssinians—are possibly as mean, ungrateful, and abject as it is possible for men to be. There is with them no real paternal, maternal, fraternal, marital, or any other kind of love, and all is suspicion and treachery among them.

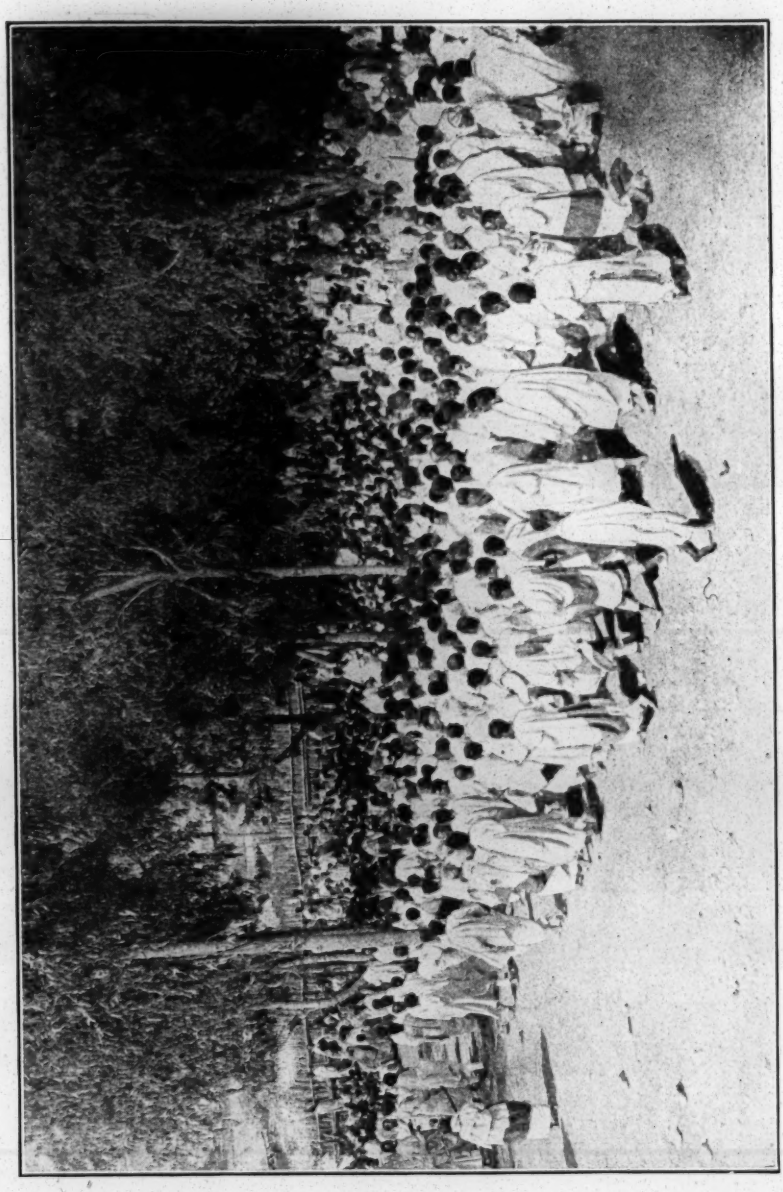
Mr Landor gives the following entertaining account of a lunch with Menelik:

At last, when the Emperor had finished eating, the curtain was drawn. Before me was one of the most impressive sights I ever witnessed. The huge gates at the further end of the hall were thrown open and a flood of sunlight was projected upon a stream of white figures entering the building in a dignified and orderly manner, all going to their respective seats along low tables close together, occupying the entire hall. Each table was covered with five or six layers of flat breads, the top layer being sprinkled copiously with red sauce from large buckets which servants conveyed to and fro. Tobasco is mildly hot as compared with this red sauce.

At a top table near the platform on which was the throne were seated the older sub-chiefs and officers. At the further tables were the soldiers. At the four tables on the left sat the officers' servants and followers.

No one paid obeisance to the Emperor on entering, as all seemed to look upon this feast as a right. In fact, a similar feast was given by Menelik every Sunday to some or other of his people.

All the men entered and sat themselves down, proceeding at once to make a hearty meal. Hundreds of huge pieces of raw meat were passed round by attendants, and each guest cut a chunk with his knife and ate it, tearing at the raw



GUESTS ON THEIR WAY TO EMPEROR MENELIK'S LUNCH PARTY FOR 7,980 PEOPLE (SEE PAGE 698)

meat with his teeth. Tall enameled iron tumblers of *tetch* were given to the soldiers.

One of the typical sights of this banquet was a huge mountain of bread upon a central table, the mountain being 8 feet high, 14 feet long, and 4 feet wide—some 448 cubic feet of bread. This was besides counting the thick layers already laid upon the tables, which were fast being demolished as each relay of guests came in. Large as the hall was, it was not sufficient to hold the guests at one time, and they came in by installments, each set of guests being expected to consume one layer of bread.

As soon as one lot had been fed and departed, the crumbled top breads were hastily removed, the under layer quickly besprinkled with the red sauce, the carpets and rugs shaken so that the dust from the people's feet went to settle down upon the food that was to be eaten by the next lot.

And so the hours went by. Swarms of figures kept pouring in with their black faces and white cloaks, giving quite a Biblical appearance to the scene. They sat with their stolid faces round their chief, who in turn was the very representation of one of the ancient patriarchs one imagines from reading the Bible. To him these people paid their oxen and cows, their grain, milk, and butter, and, as he knew no better way to get rid of his wealth so he gave back to his people plenty to eat and to drink, to show the fatherly interest which he took in his subjects.

I studied Menelik carefully. He really seemed to delight in having his people around him, and in watching them feed heartily and enjoying themselves.

I asked the Emperor how many oxen and sheep had been killed that day, and he told me that over one hundred and twenty oxen had been dispatched and several hundred sheep.

Menelik certainly had the best-natured face, not the handsomest, of any Abyssinian I had seen. There was something leonine about his countenance, although his eyes, very prominent and bloodshot, had more the suavity of bovines. He was badly pock-marked. He possessed a capricious, turned-up nose, narrow at the nostrils, and prominent lips, the lower rather too drooping to suggest strong will. His Imperial Majesty's skin was as black as coal and rough; but although the face was altogether rugged, it was absolutely devoid of vulgarity. Intelligence and sharpness of wits showed clearly in his expression.

Many of the better Abyssinians have told me that their war with Italy has been a ruin not only to Italy, but to the Abyssinians themselves, who will some day surely pay for the conceit they have now acquired. Barring some of the people in power, it is difficult to make the public at large differentiate between nations of Europe. For them, bearing one white nation means beating the whole world of white people.

There are few regions in Africa which are richer than the western and southwestern portions of Abyssinia, generally known as the Galla country. Its picturesque mountain masses are well wooded and the valleys are regular gardens. The climate is ideal, water for irrigation plentiful, and the soil so fertile that it will produce anything with the minimum of labor.

In Abyssinia there is at the present day immense wealth in gold and silver money and in ivory lying idle.

Owing to the peculiar way of administering justice, in a country where no one speaks the truth and black-mailing is usual, where the accused, whether innocent or not, is not judged according to his crime, but is first of all imprisoned and his property confiscated, it is no wonder if those who possess wealth keep it carefully buried; also the fact that a wife on divorcing her husband can claim half his fortune tends to promote this attitude of suspicion toward all neighbors.

Enormous quantities of ivory, I am told, are buried in Abyssinia, and are gradually getting spoiled. Menelik has a vast amount of this valuable possession stored away. Possibly ivory, with its ever-increasing value, may be used some

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day as a deposit security in banking concerns of Menelik's empire

It is also said that Menelik has considerable sums of money buried at Ankober, in the mountains northeast of Adis-Ababa, and also at Mongoresa.

Many of the men seen after leaving the capital wore caps made from the skin of the *guresa*, a beautiful big monkey, which possesses a silky coat, black under the arms, not unlike a small "zouave," while all round the lower portion of the body the hair is equally long, but of the purest white. The face is framed in a white beard, and the magnificent long tail has a big white ball-like tuft of hair at the end.

One of my Abyssinian soldiers—these Abyssinians have the instinct of destruction in a marked degree—shot one of these monkeys one day, for which I severely punished him. The poor monkey was wounded, and fell upon the trail from its high perch on the top of a tree. In intense pain, the poor animal seemed just like a human being in its dying moments, and the reproachful expression of its face haunted me for days.

GALLA WOMAN SELLING BUTTER: ABYSSINIA

I do not believe that I have ever seen more beautiful monkeys than these *guresa*, and I could never restrain my admiration for their marvelous powers of jumping from one tree to another, and for their intelligence in using the swing of the branches in order to be propelled amazing distances through the air by the impetus. The skin of the *guresa* has a considerable market value in Abyssinia.

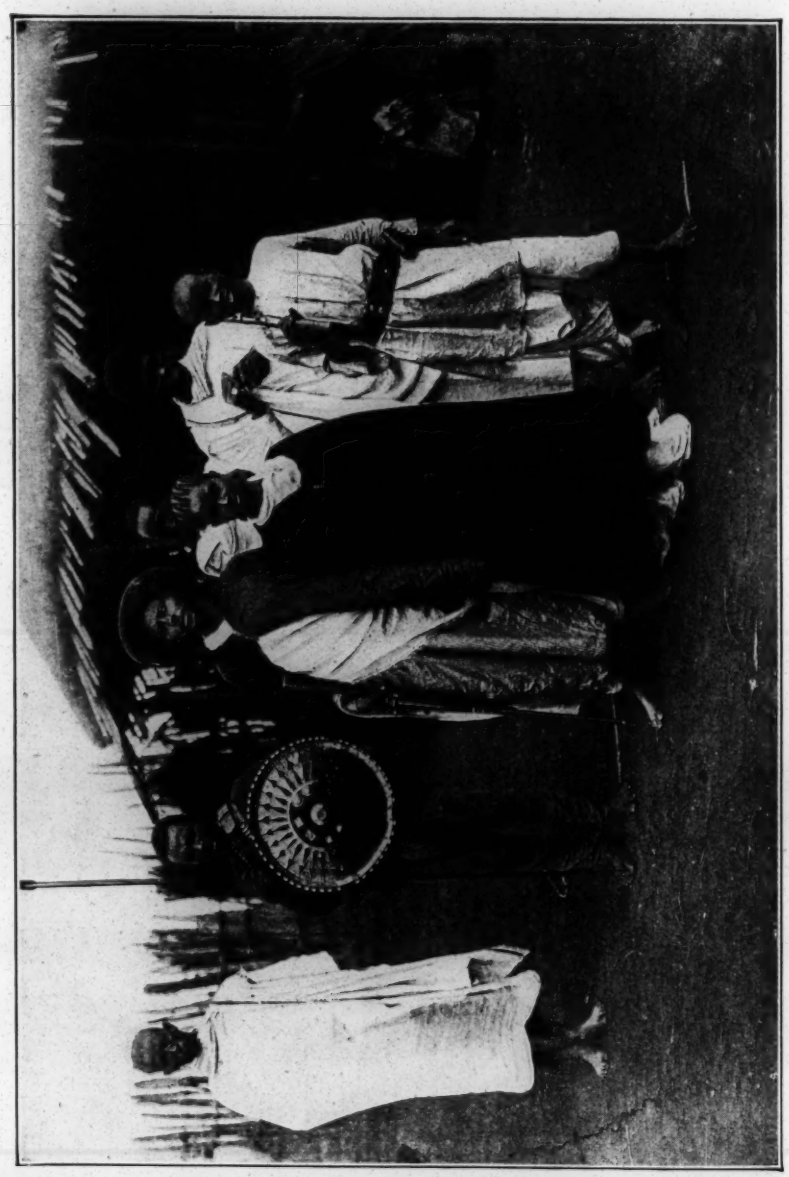
Abyssinia is a great country for monkeys of all sizes, but perhaps the *totos*, or dog-faced, long-nosed monkeys, are the most common. Irritable to a degree, ill-tempered and vicious, these brown bristly haired brutes grow up to a good size. Although, like all monkeys, they can be amusing, they were always quite repulsive to me, as they were neither beautiful nor graceful.

Of the priests, of whom there are probably 6,000 in Abyssinia, Mr. Landor has nothing kind to say. "Depravity was plainly depicted upon their features."

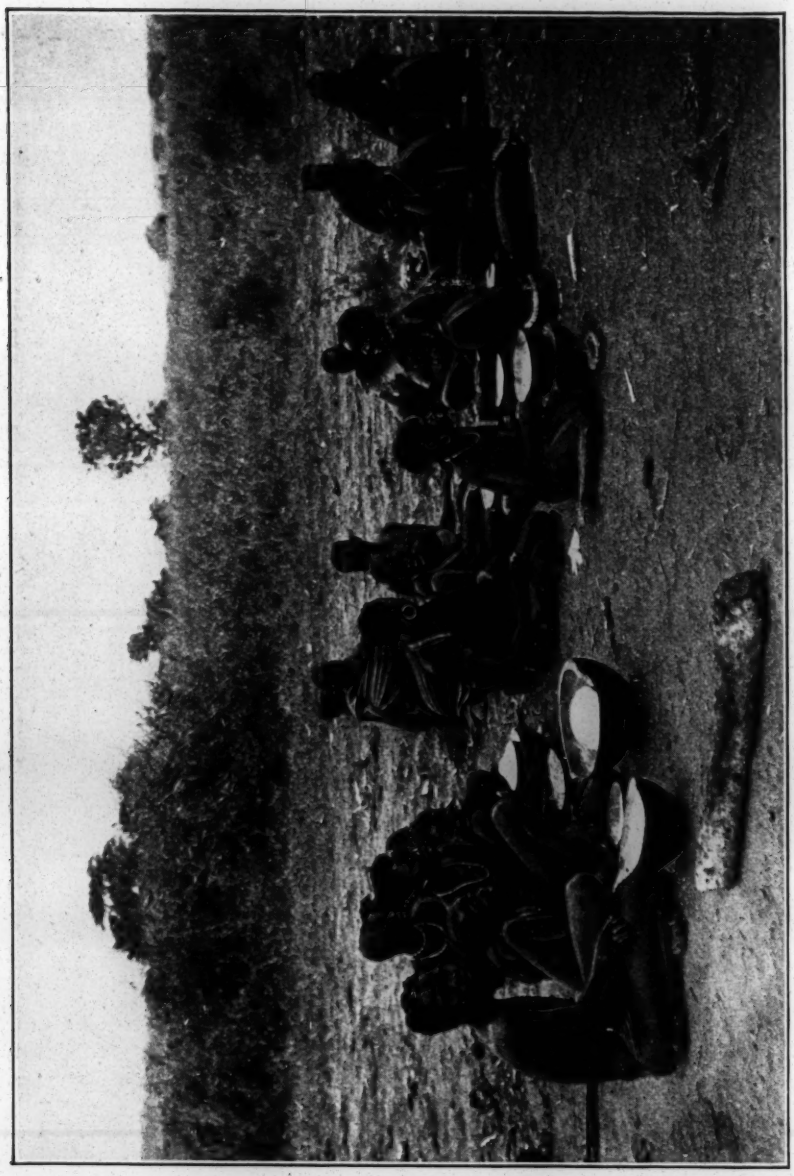
The author was nearly four weeks traversing the highlands of Abyssinia at elevations of from 8,000 to 5,000 feet. He found the country rich in game, elephants, giraffes, lions, leopards, ostriches, hyenas, and antelopes being plentiful, while innumerable flamingoes, cranes, and red gazelles were continually being seen.

He was astonished to find very few musical instruments in Abyssinia. Beyond the drum, a kind of violin, and the *kheras*, all of which they play very badly, there were no typical musical instruments of any importance.

From Abyssinia the author passed into



A TYPICAL HIGH OFFICIAL OF ABYSSINIA—GOVERNOR BIRU, OF BURE, AND HIS WIFE



WOMEN'S MARKET IN THE YAMBO COUNTRY

the country of the Yampos, the Nuers, and Dinkas, all of whom are long-limbed giants belonging to the British sphere of influence.

The Yambo women think they embellish themselves by making large cicatrices on the body, while the men indulge in similar incisions on the arms and chest.

As compared with the dances of Asia, I never saw among any of the tribes of Central Africa dances of any originality or grace. The Yambo, like all negroes, dance a great deal at their festivals, the men and women often joining in these dances; the men opposite the women, who sing and clap their hands, while the men jump and hop about lightly with knees slightly bent. The tam-tam is not beaten with the hand, but with two sticks, and as these people do nothing but play on the tam-tam all day and all night, they eventually become skillful at it.

The chiefs do not remove their front teeth, but all the others, both men and women, do. In their particular case they profess that it is done in order to facilitate speech, as their teeth grow quickly at a peculiar angle, which makes it uncomfortable for them to close the mouth absolutely until the teeth are removed. Although this is the reason they themselves give, I think that their speech is only affected because their respiratory organs do not work as they should when the hot, fetid air of their region is inhaled in large quantities through the mouth—a fact which might certainly affect their speech also.

It is a curious fact that the Yambo who inhabit a region unmistakably deadly for all other people, as well as for tame animals brought there, are not themselves affected by malarial fever, notwithstanding that they are simply devoured by mosquitoes.

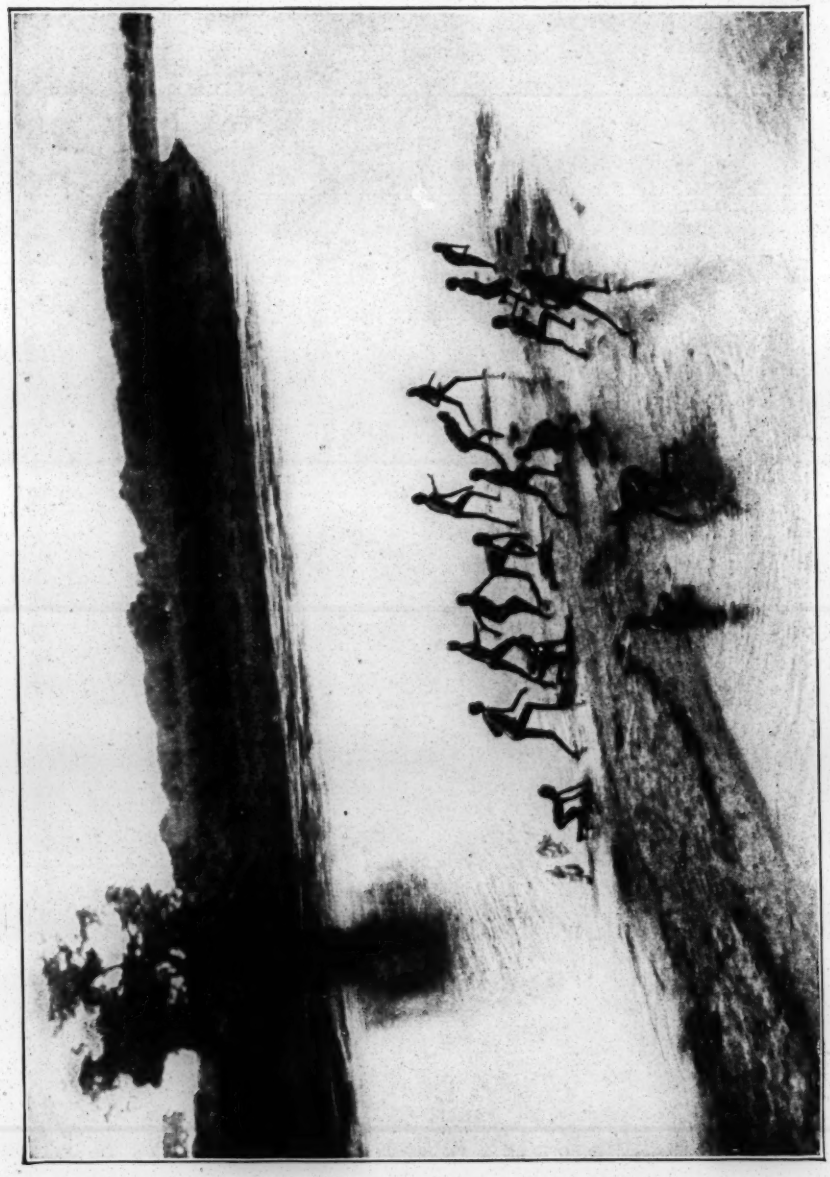
The narrative of the march through the Nuer country and descriptions of this long-legged people, with their queer methods of plastering the hair with red mud and their unique custom of keeping count of their love affairs by scars on the body make novel reading.

We marched over a wide, treeless, flat country, so trampled upon by elephants in the wet season that thousands of deep holes — their footmarks — covered the whole country and were a great nuisance —in fact, quite a danger—for my animals. These holes delayed us considerably, as they were often covered with grass ,and my animals were constantly tumbling into them.

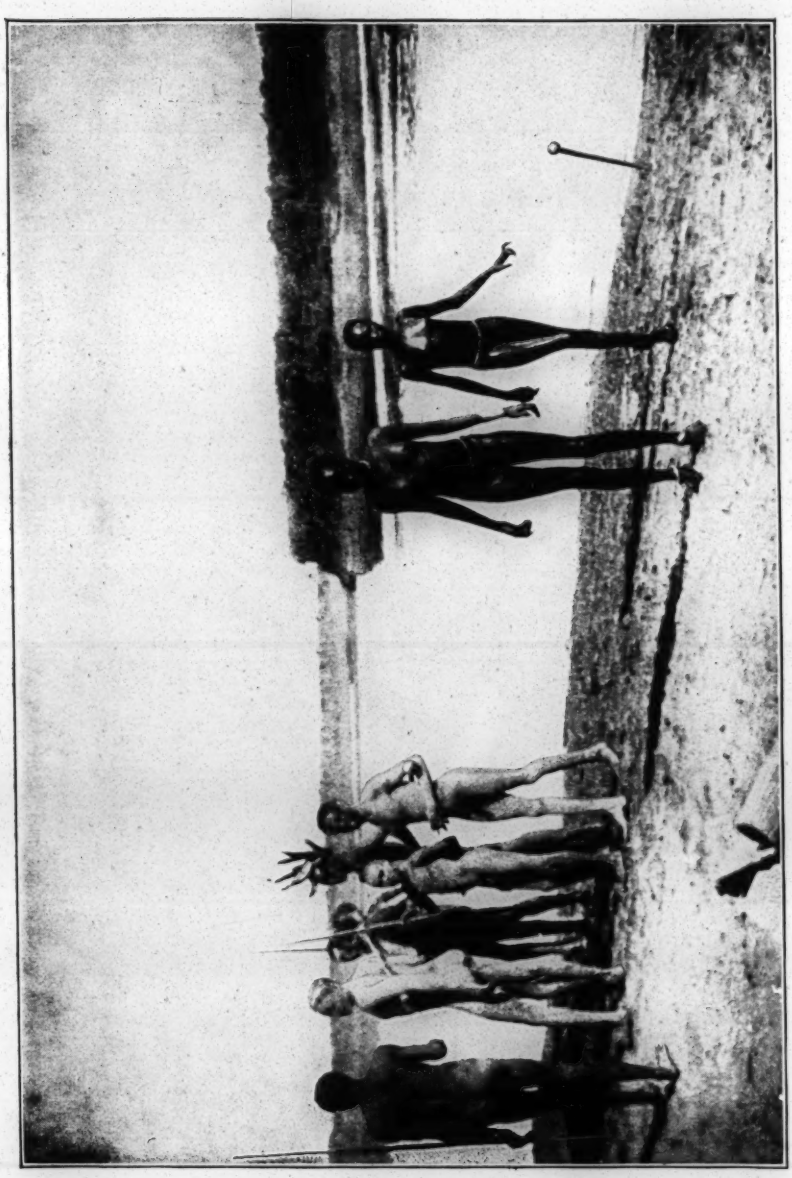
We had no experiences worthy of notice that day, nor did we see much game, except two herds of large red antelopes and flocks of herons striding majestically about, with their red beaks, black wings, white chest, and long red bag dangling from the neck. In the heat of the sun they spread their spacious wings and kept the head under the shade thus produced. They remained in that position sometimes for hours, generally perched on the top of high sand heaps or ant hills, thousands of which are to be found all over this country.

There was a slight difference in the type of these Nuer, and they did not generally follow the custom of smearing themselves all over with ashes like the tribes farther east. It was not uncommon, however, to see men painted white all over, except for a dash of grease upon the chest, which gave a beautiful black shine to the undyed skin, and a half moon by the side of it. The face and neck were painted of a brilliant red color, quite a ghastly practice. Another fashion common among these people was that of smearing the body with butter when it was not dyed with ashes. The skin became then beautifully polished. The reason all these tribes plastered their hair into a point was merely to remove the natural kinks and curls and render it quite straight; also, of course, to bleach it.

The vanity of these people was amazing. I saw two men with brass bracelets so tight round the forearm that the circulation had almost ceased and the hands had got swollen and almost atrophied. In two cases which came under my observation these bracelets had actually cut into the flesh at the wrist, and when I asked the owners why they did not remove them, as the hand was getting ab-

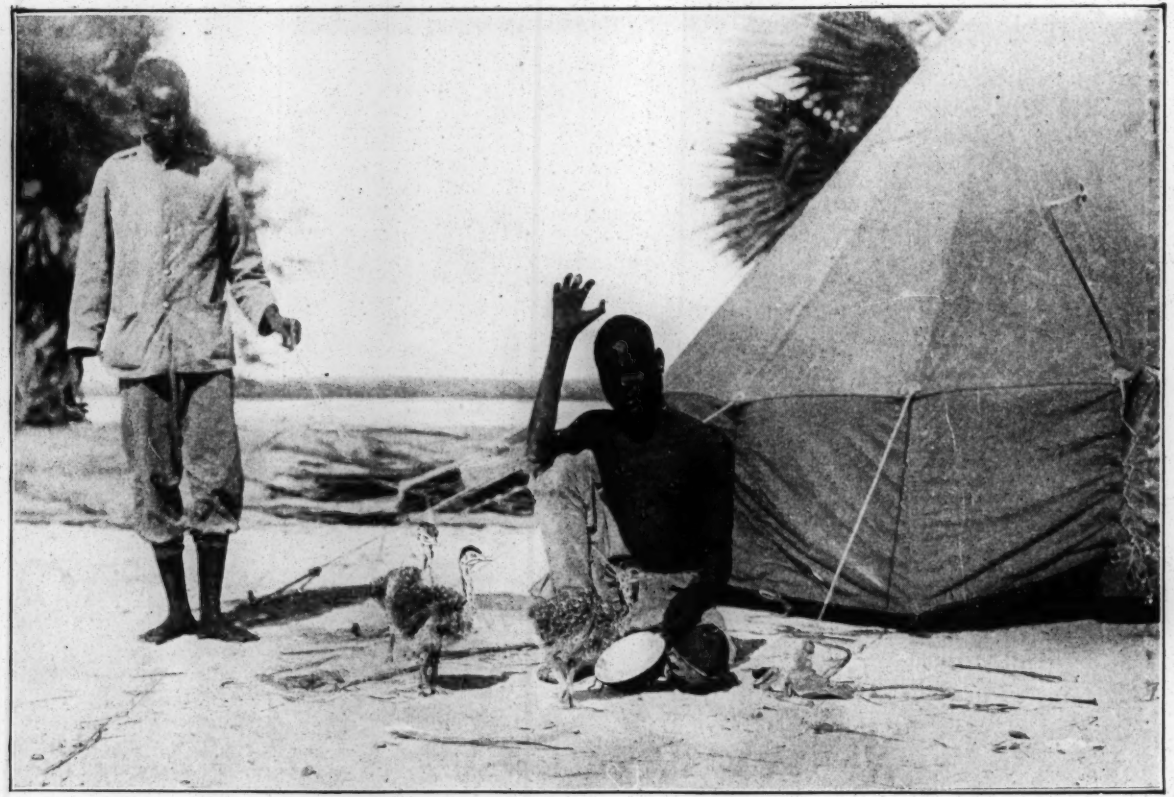


STAMPEDING NUER WOMEN (SHOWING GREAT LENGTH OF THEIR LEGS)



THE LONG-LEGGED PEOPLE—NUER MEN AND WOMEN

Most of the men of this people are over six feet tall



AUTHOR'S THREE PET OSTRICHES, AND LEPER CAMP-FOLLOWER

Leprosy and blood diseases in their most hideous form were seen in almost every community. In fact, lepers were so common that they mingled freely with the people, sometimes holding prominent positions as at Gori, where the chief of the market was a leper.

solutely paralyzed, they said they would rather lose the use of their hands altogether than remove such a becoming ornament. They said it had been there from their earliest days and they would stick to it.

We experienced steamy hot, quite oppressive, weather on our next march across flat, uninteresting country. We saw a lot of giraffes near the road, but I never fired at these animals for two reasons: First of all, because it was forbidden by the government; then because they were too tame and their skins useless.

There were beautiful birds flying about—small green parrots in quantities and tiny blue silky-coated humming-birds. Upon the ground crawled a great variety of beautiful lizards and chameleons of wonderful gradations of tints, from the richest and warmest cadmium yellow to the deepest ultramarine blue.

One beautifully shaped smooth-bodied lizard in stripes of yellow and dark brown was also noticeable, the yellow blending into a faint blue, which gradually got darker until it became deep and rich toward the end of the tail. The most common chameleons possessed bright yellowish heads, dark-blue bodies, and a yellow-ringed tail of light blue with a black tip. There was then another kind of rough-skinned chameleon in all shades of vivid browns and greens. Dozens of them played around me at the "*Gemaiza*" tree, where I had stopped for my lunch.

There were three wells here, thirty to thirty-five feet deep, with putrid water that stunk as we brought the bucket up to the surface.

More Dinka were to be found here, all with four cuts on each side of the forehead; men and women adorned with a pointed leather tail behind. Some wore quite a long tail, not unlike that of a modern dress-coat. Most of these tails were made of tanned leather, but many people wore tiny tails of antelope or waterbuck. Several women showed broad bands of small white and red beads with a fringe of rope just over the loins.

Young men displayed two rows of parallel dots upon their skin running down each side of the body directly under the breasts, and eventually forming an angle. All the men shaved the greater portion of the skull, leaving a circular tuft of hair at the back of the head, into which they stuck porcupine quills or ostrich feathers, as the fashion of day prompted them. The women shaved a good portion of the side hair and also part of the top of the head. They plaited what remained into tiny tresses, which they often smeared with butter and red earth.

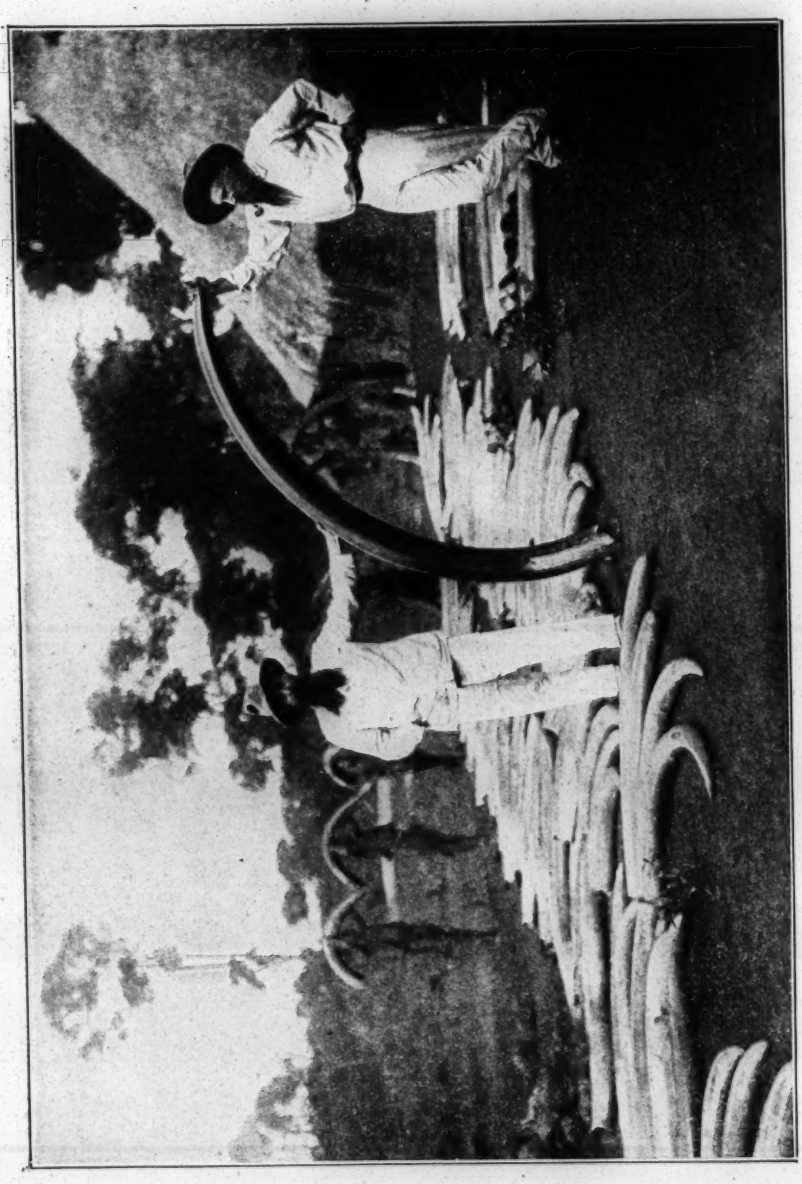
Although we still found a few men who covered themselves with ashes, the custom was not so general here as farther east.

Dinka houses had a narrow mud wall four feet high. A thatched roof, constructed separately, was placed bodily upon this wall when completed. A small open porch adjoined the front of the house and several small peepholes were to be seen around the wall of the hut.

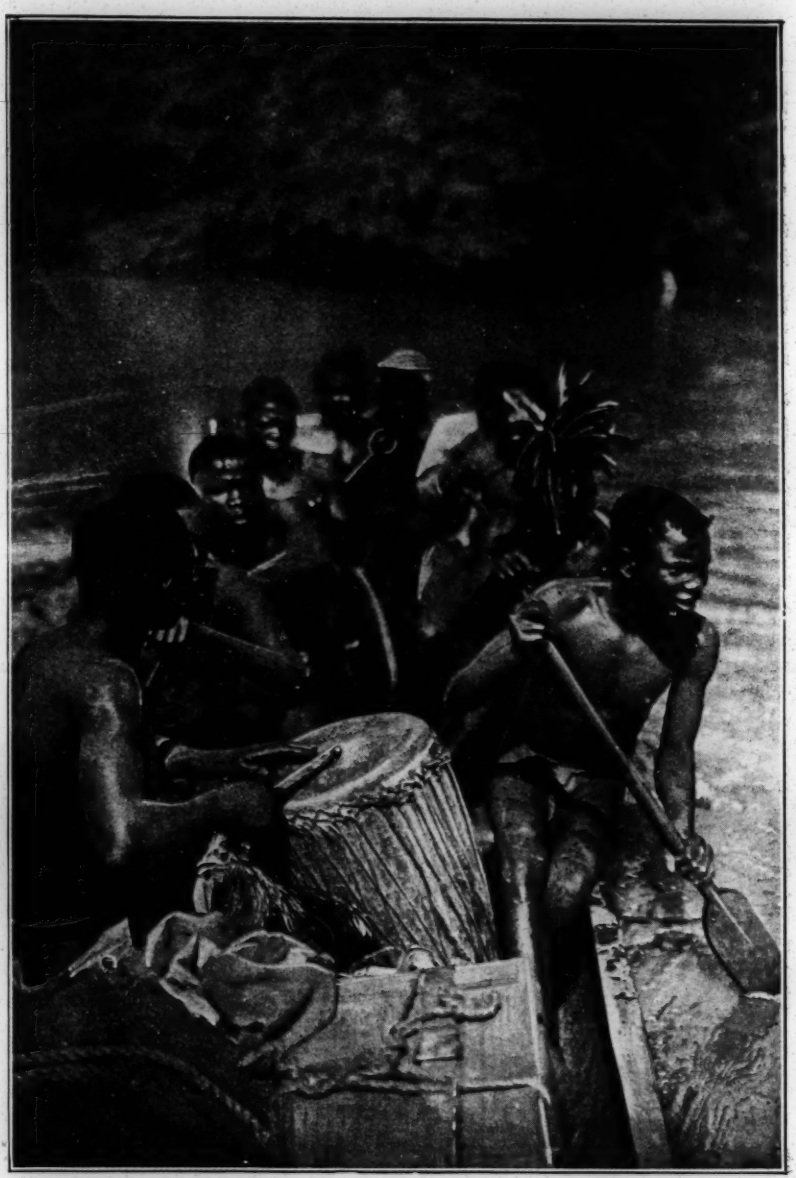
The fashion of wearing many rings in separate holes all the way round the curve of the ears was common among these people. We fared badly for water, as there was none on the road except at these wells or in the small pools dug by natives or by the government. Some of these pools were only ten feet or so below the level of the ground in sandy soil. They contained a few inches of water, possibly as much as a small washbasinful.

After the hot marches, when we arrived anywhere insatiably thirsty, especially in the evening, we generally found natives sitting in these pools washing their limbs and body. As this was the only water we could find, it did not make us particularly amiable towards the local residents, and we had to face the problem whether we would resign ourselves to die of thirst or use it as best we could. I do not know that boiling improved it much. We generally disguised it into strong coffee, but there was so much lime in many of these wells that even the strongest coffee brewed was hardly less

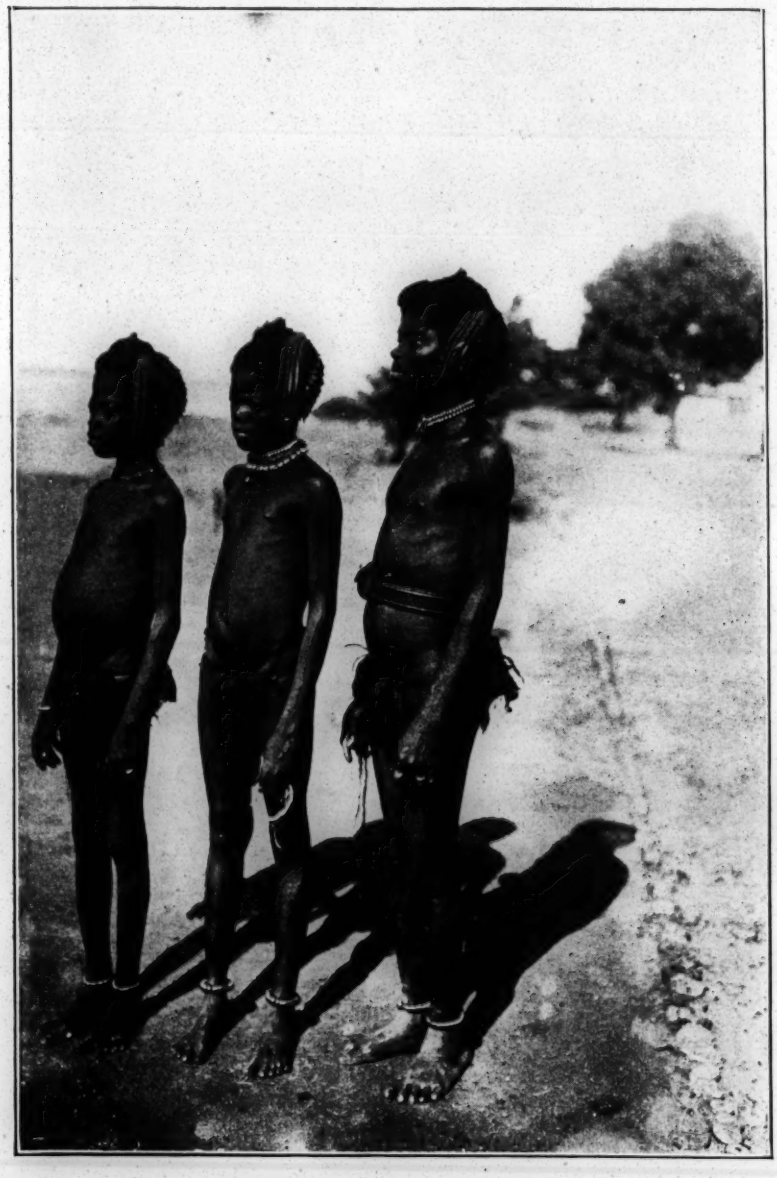
SOMETIMES A SMALL FISH IS CAUGHT ON THE NILE; SOMETIMES NOT SO SMALL



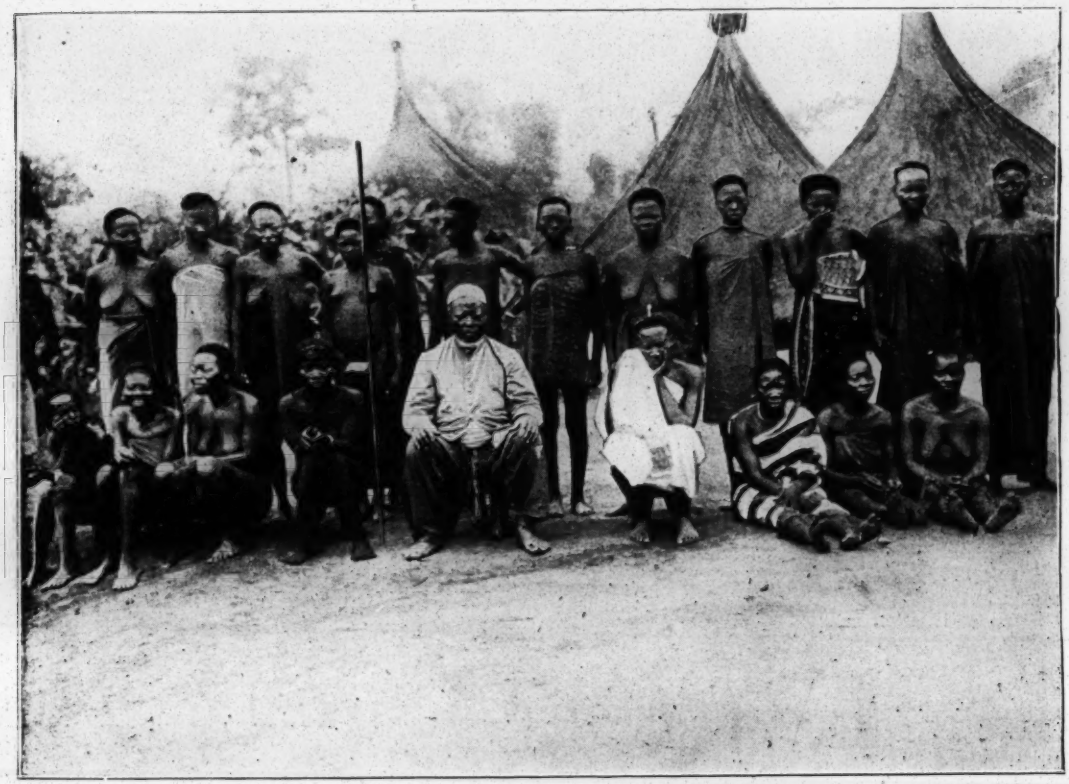
IVORY ON THE RIVER CHINKO



YACOMA CREW IN AUTHOR'S CANOE ON THE RIVER MBOMU



TONGU WITH HAIR ORNAMENTATIONS OF BEADS, CONGO FREE STATE



THE SULTAN OF BONGASSO AND HIS WIVES

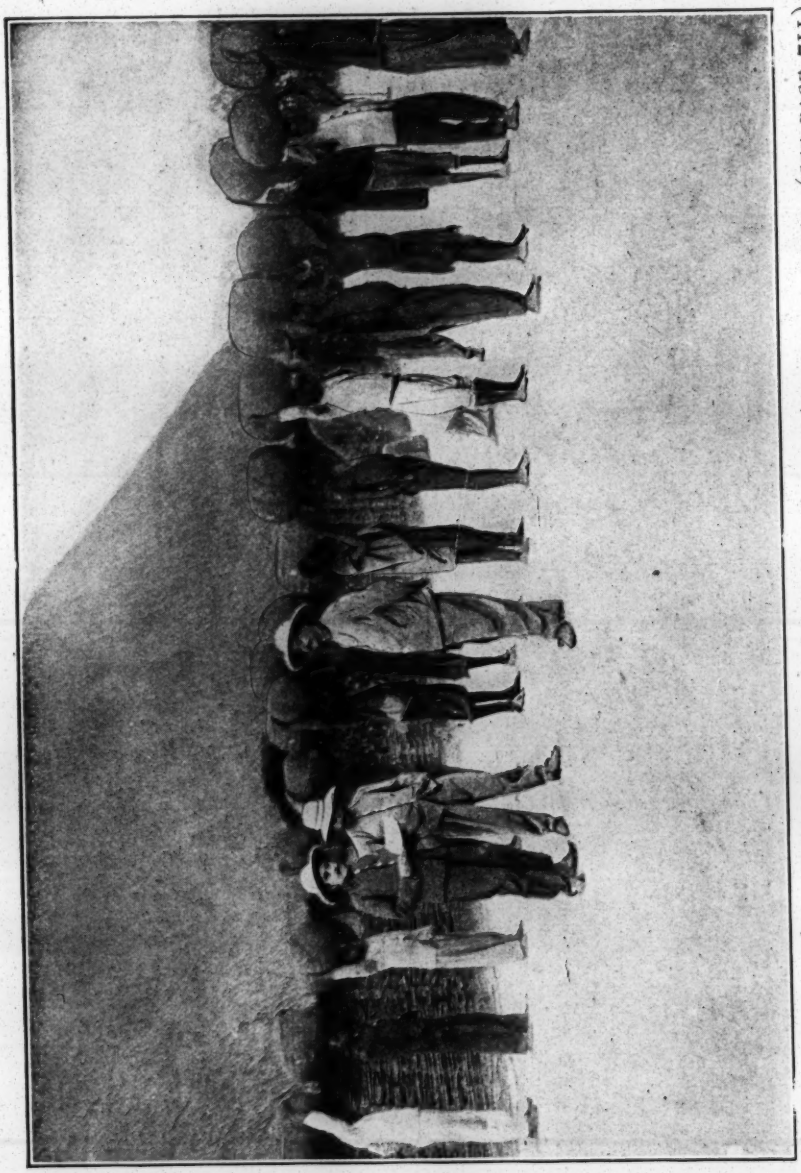
white than pure milk. It generally hurt one's gums and palate considerably as it burnt to no trifling extent.

Considerable time was spent at Bongasso, the headquarters of a French company with an immense concession, covering 145,000 square kilometers, the richest in Central Africa in rubber and ivory. The author was greatly impressed by the care the company was taking of its employees.

Strict orders had been given to all the *chefs des factoreries* to establish kitchen gardens in every *factorerie* and to grow all kinds of vegetables; every three months a box was dispatched from France with seeds of all kinds for every *factorerie*. This was deemed an important precaution to keep Europeans in good health, the need of good fresh vegetables being felt, especially in the great heat of the summer.

I have heard people talk a lot in England of French methods and how badly employees are provided for. This is one of those insular prejudices which, with many others, unfortunately prevail in this country regarding anything done by people of other nationalities. On the contrary, it was a pleasure to notice how thoughtful and generous, almost motherly, the *Société des Sultanats* was toward her staff. Constant and regular supplies were sent out at much expense to every agent of the company, each receiving a ration box containing a quantity of flour, plenty of wholesome red wine, a bottle of cognac, some champagne as a medicinal comfort, butter, biscuits, mustard, tea, and other articles highly welcome in Central Africa.

The development of the *Société des Sultanats* has been enormous during the last few years. In 1906 the production



RUBBER BEING BROUGHT IN AT SOCIÉTÉ DES SULTANATS (BONGASSO): FRENCH CONGO (SEE PAGE 711)

THE BEST DANCER ON THE UBANGI: BANZYVILLE, CONGO FREE STATE

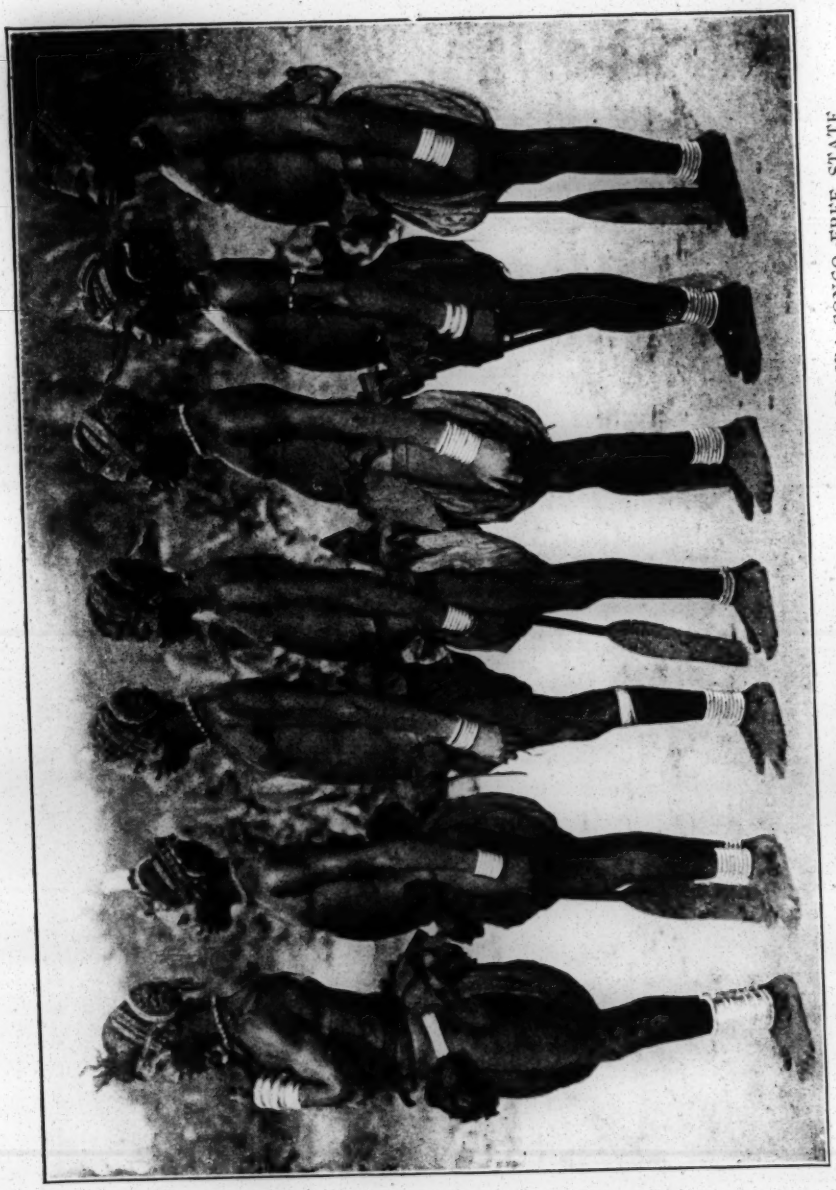
of rubber packed and sent over to Antwerp was over three hundred tons, and this year (1907) I am told on good authority that over four hundred tons are expected.

Particular stress is laid on the obligation imposed upon the concessionaries concerning the planting of rubber-producing plants, as well as the preservation of the forests. Under the *Societe des Sultanats* immense plantations of *ire* were being made, and from what I could see, and I saw a good deal, the country under their concession was being greatly benefited by the exploitation.

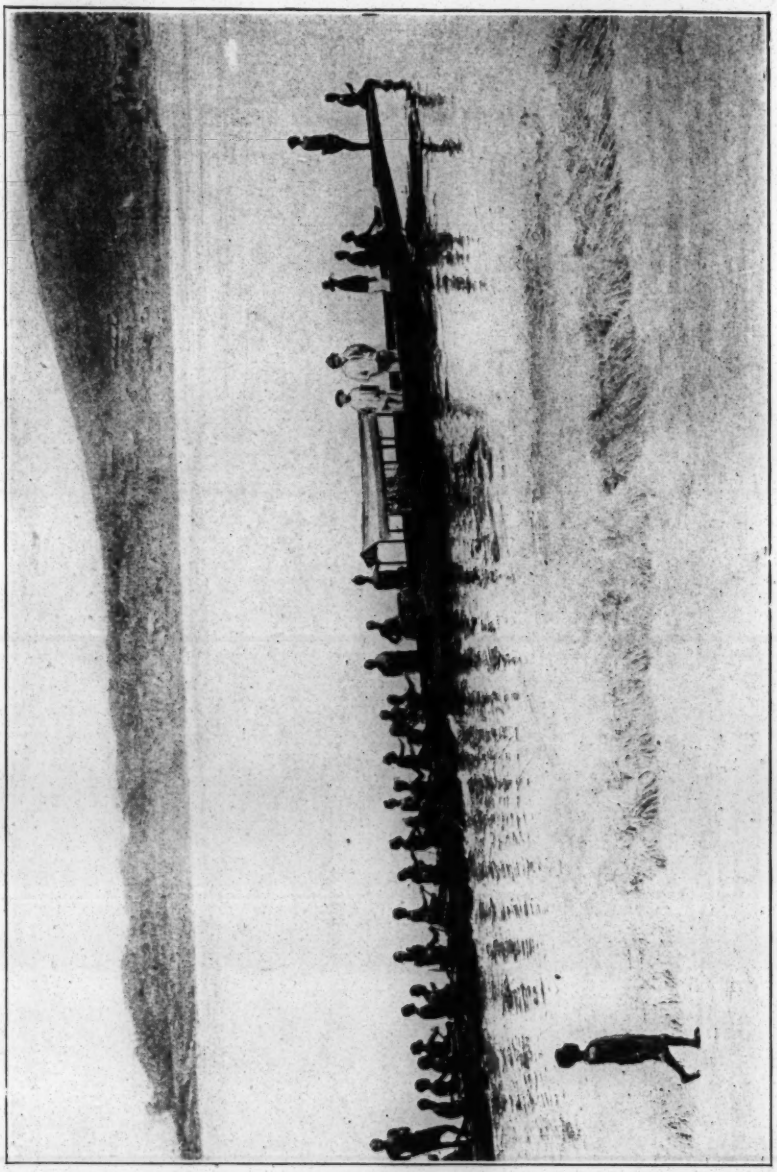
At the post of Yacoma, Congo Free State, great plantations were made of rice, wheat, Indian corn, and extensive plantations of rubber, the *Functunia elastica,* commonly called the *ire,* which was the most suitable rubber plant for that particular climate.

It was near Archambault (on the Shari River) that I found the custom of elongating the lips more exaggerated than in any other part of Africa, the women actually inserting small wooden or tin saucers in their upper lip and sometimes in both lips. The photographs which I took (see pages 723–726) will show better than a description how ghastly this fashion is. It was most ludicrous to hear these young ladies talk, especially when they had two plates, one in the upper and one in the lower lip, as these clapped like castanets, and the voice became nasal and unmusical.

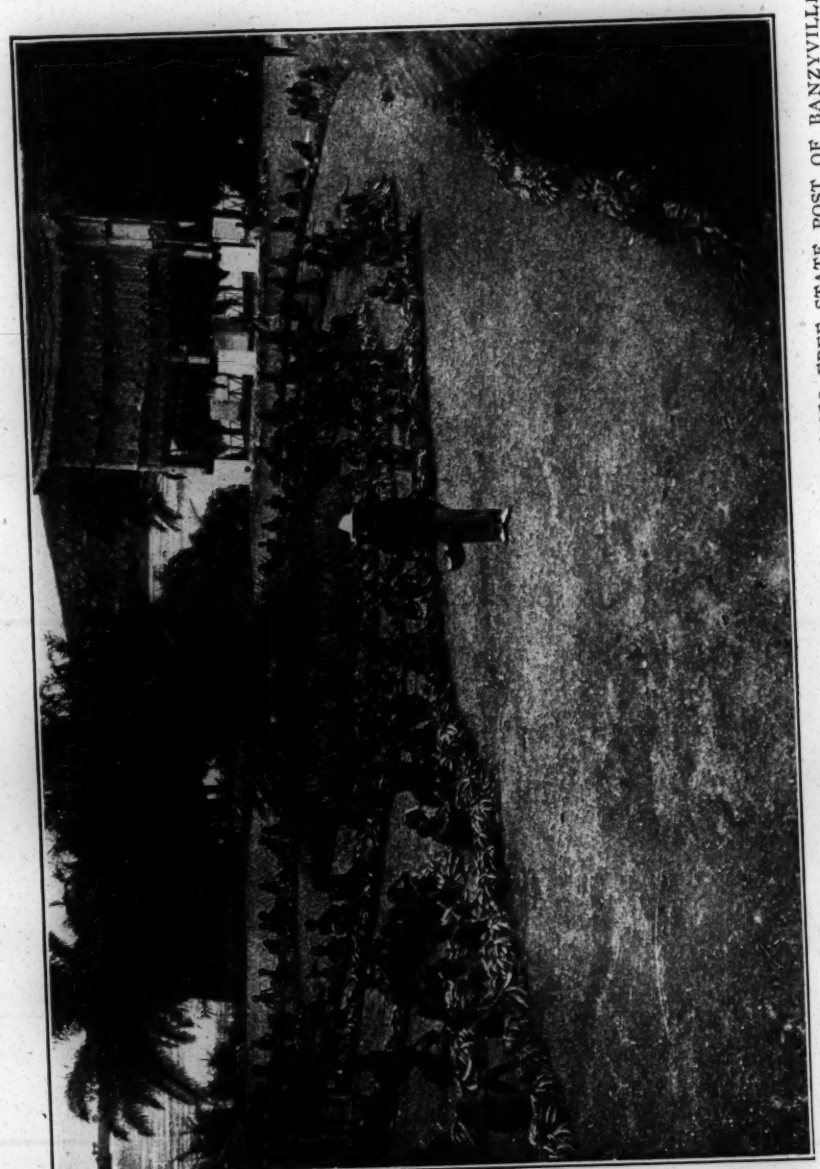
These women were otherwise well-formed anatomically and quite statuesque when young. They adorned their ankles and arms with brass rings and wore shell ornaments round the neck. The plates in the lips were occasionally removed, when the upper lip hung down so low in a loop



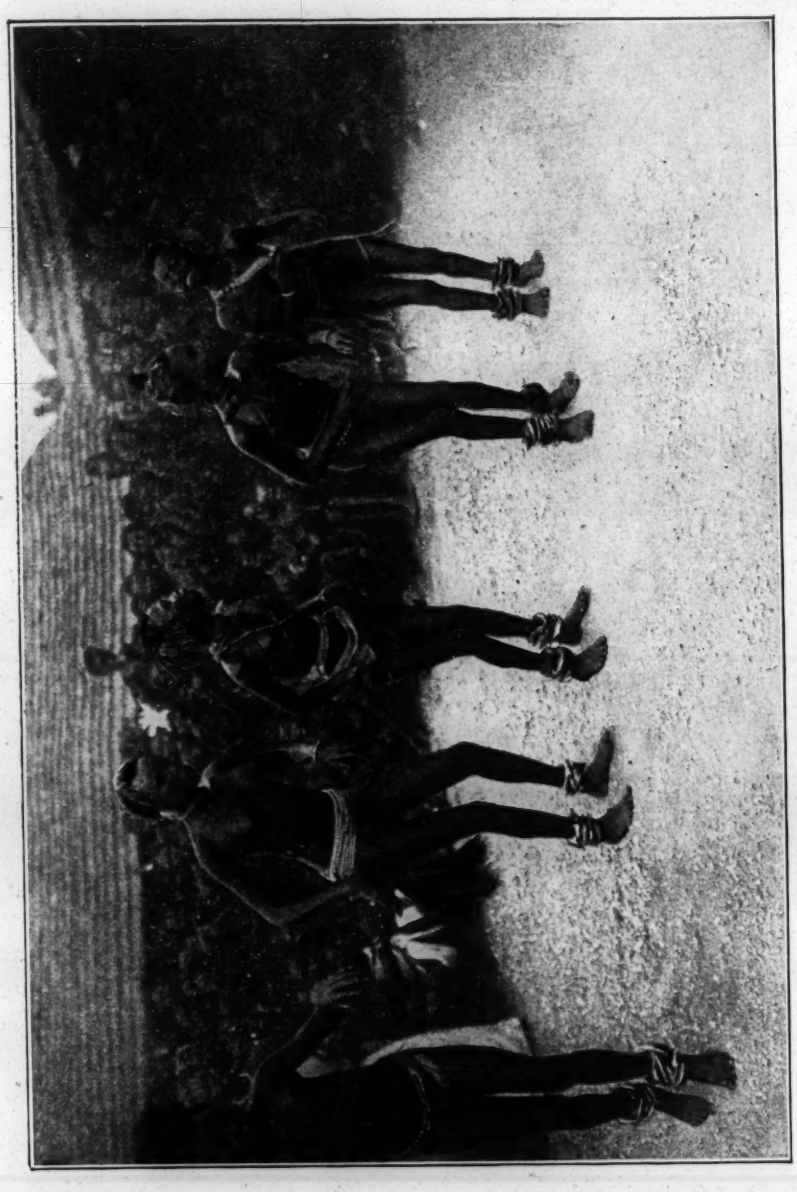
CANNIBALS WITH WONDERFUL BEAD DECORATIONS ON THE HAIR: CONGO FREE STATE



THE LONGEST CANOE (71½ FEET) ON THE UBANGI

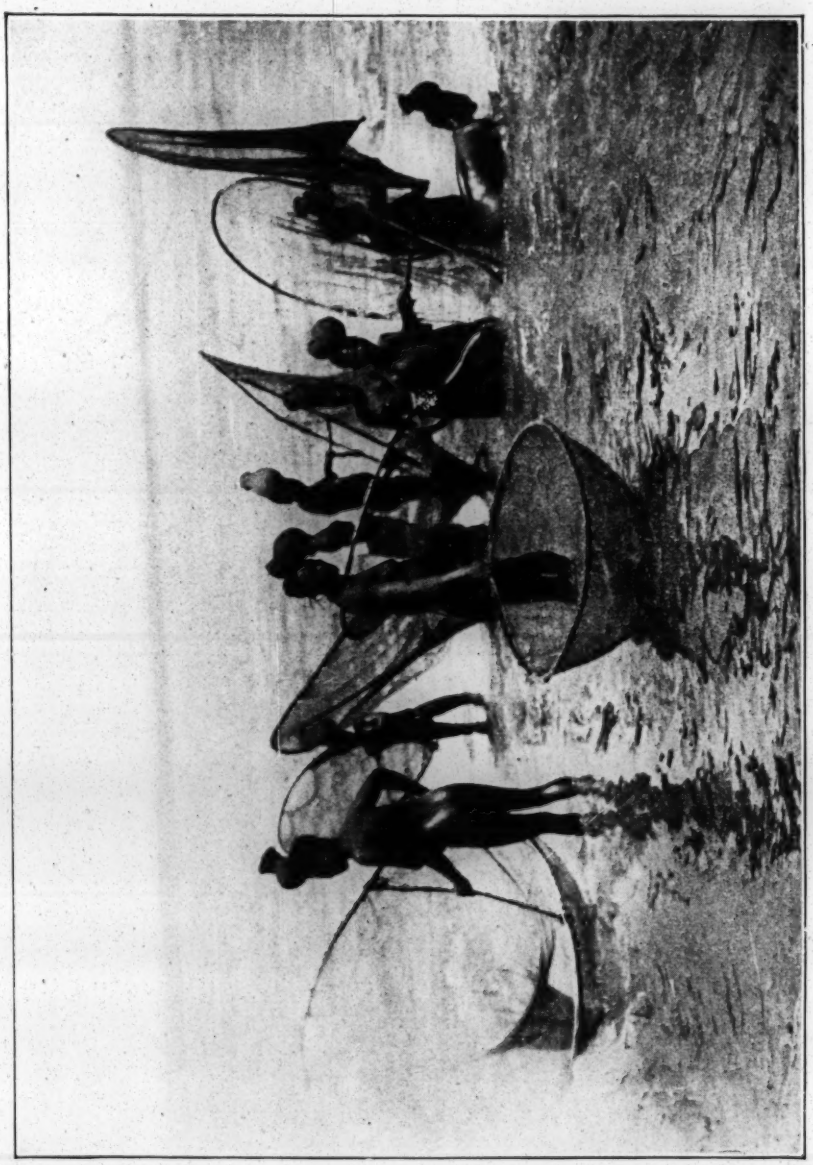


BANANAS BEING CONVEYED BY NATIVE CHILDREN INTO THE CONGO FREE STATE POST OF BANZYVILLE



WOMEN DANCING IN THE CONGO FREE STATE

CANNIBAL DANCERS IN CONGO FREE STATE: THE DANCERS ARE CARRIED ON MEN'S OR WOMEN'S SHOULDERS WHEN NOT DANCING

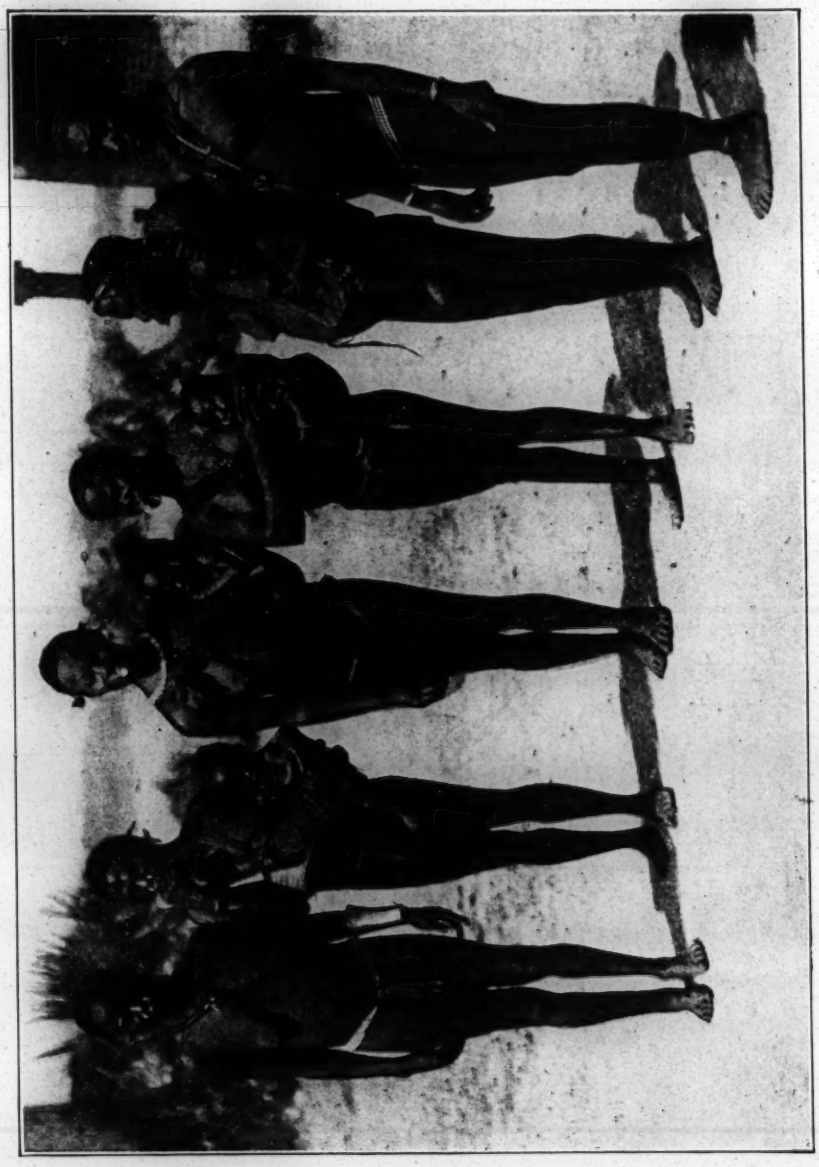


FISHERWOMEN ON THE UBANGI, CONGO FREE STATE

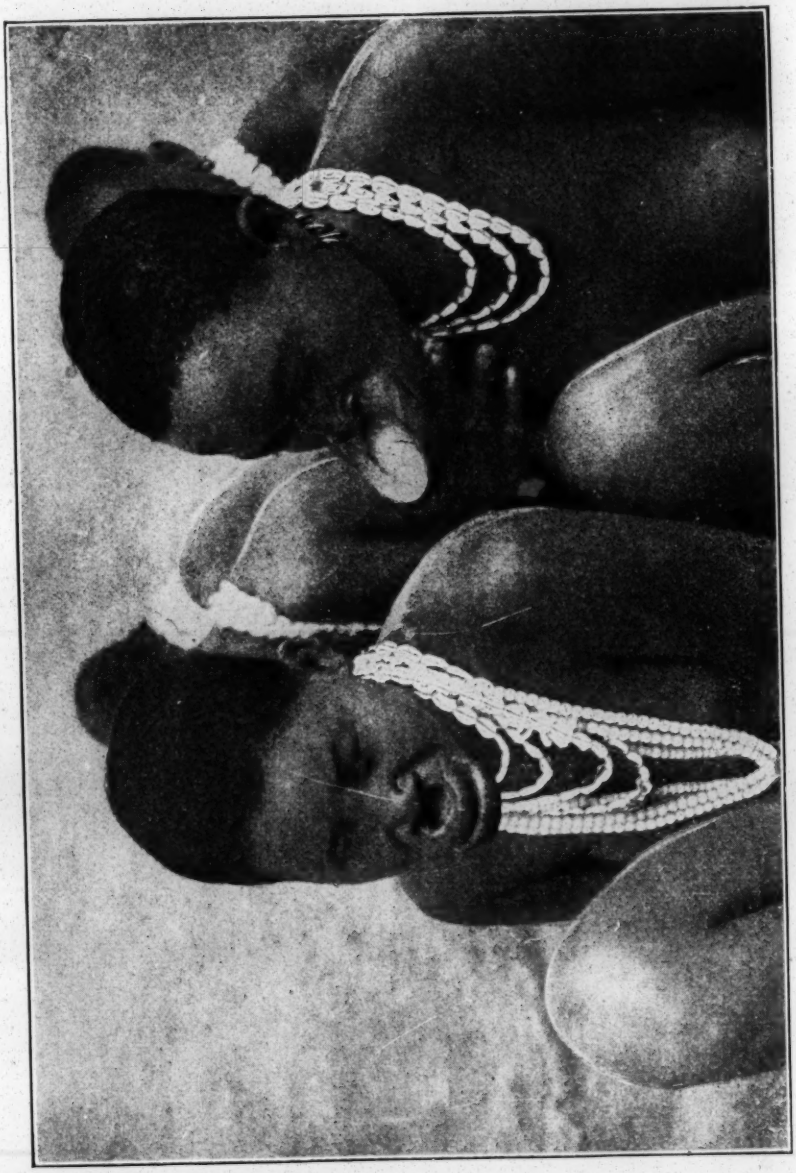
The small basket fastened to the head of each fisherwoman contains her catch

PICTURESQUE CANNIBALS: SANGO TRIBE

A BEAUTY COMPETITION



MANDJA WOMEN, SHOWING THEIR METHOD OF CARRYING THE BABY



WOMEN WITH ELONGATED LIPS: SHARI RIVER

WOMEN WITH ELONGATED LIPS (PROFILE)

as to reach lower than the chin, and left a repulsive aperture under the nose through which one could see the teeth. As the strain of the lip being pulled hurts them considerably, when they removed the disc or plate they generally licked the lip and the nose through this unnatural aperture.

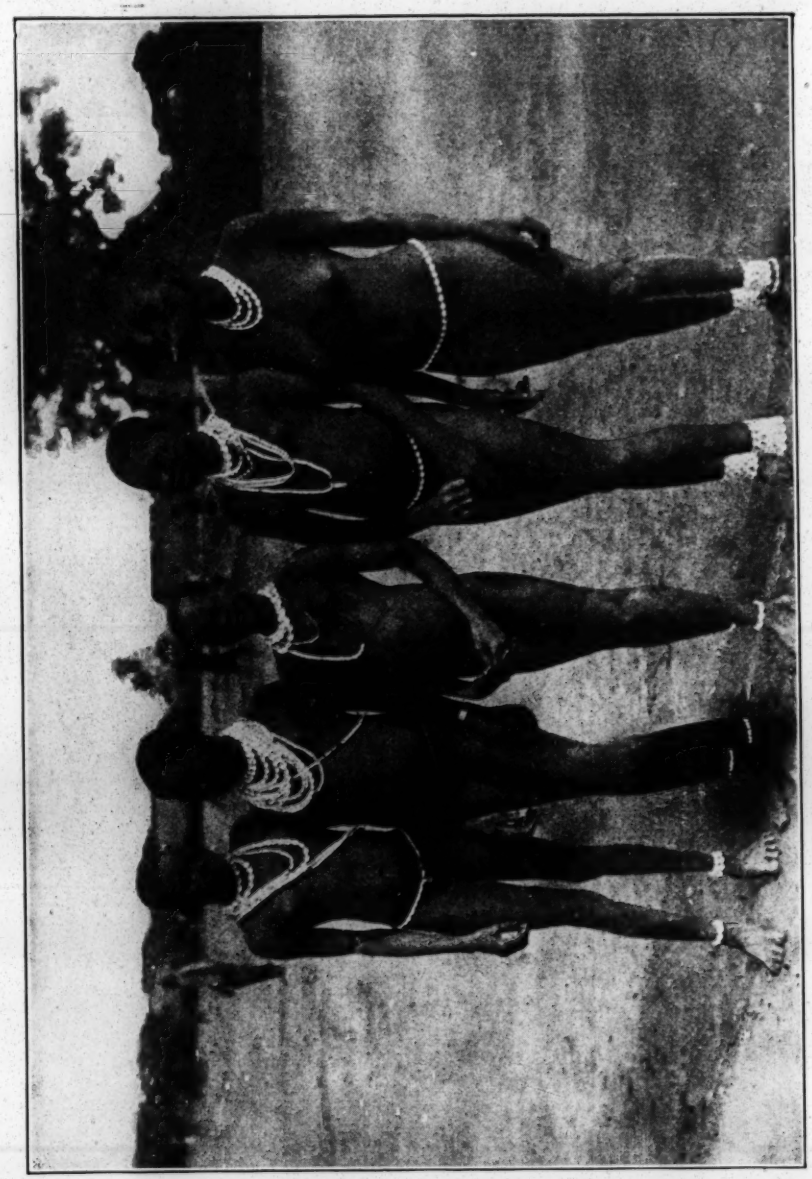
The Tuareg, found beyond Lake Tchad, had mostly intermarried with black tribes and were dark-skinned, but those further north, many of whom I saw, had white skins like the Arabs. They were undoubtedly the most attractive and noblest people of the desert in the French Sudan.

The Tuareg inhabit a quadrilateral country known by European geographers as the central plateau of the Sahara.

One of the most typical habits of the Tuareg is the wearing of a veil over the face, which has gained them the name of *Ahel-el-litham,* or "people of the veil," or the Arabic name of *Molathemin,* "the veiled." This veil is worn at all times by the Tuareg, and they never remove it either to eat or sleep, when at home or on a journey. Only the eyes are visible, the other parts of the face being hidden by the turban and by the *litham.* Nobody seems to know exactly the origin of this habit, or the reason why it has not only been kept up by the Tuareg, but has been copied by many other tribes in the Niger valley, and all over the desert.

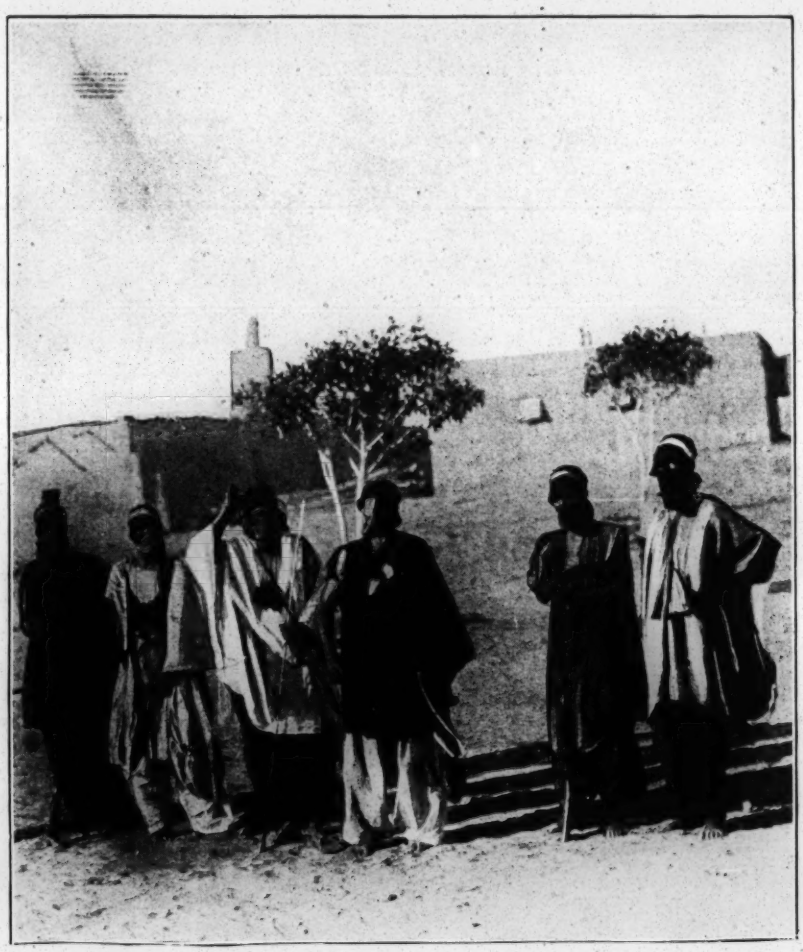
Some people say that it is because the brigand-like Tuareg do not wish to be recognized by their enemies; others maintain that the Tuareg hide the nose and mouth to prevent the fine sand from entering their lungs; others, more scientific, say that it is in order to keep moisture at the entrance of the respiratory organs in a climate where the atmosphere is so extremely dry. Personally, I think that all these theories are inaccurate, and I believe it is nothing more or less than a fashion, as the women of the Tuareg, for instance, never wear a veil at all, and them seem in excellent health. Tuaregs never remove the veil from their faces even to meet friends or relations, and were it done among themselves it would be considered an insult.

There was absolutely no mystery about Timbuctu, and as soon as one entered the town the observer was forcibly struck by how much overrated this sacred place had been. From an artistic point of view there was not a single building in Tim-



WOMEN ON THE SHARI RIVER, SHOWING EXTENSION OF LIPS AT VARIOUS AGES

WOMAN OF THE LOWER SHARI: TWO WOODEN DISCS WERE INSERTED IN THE LIPS



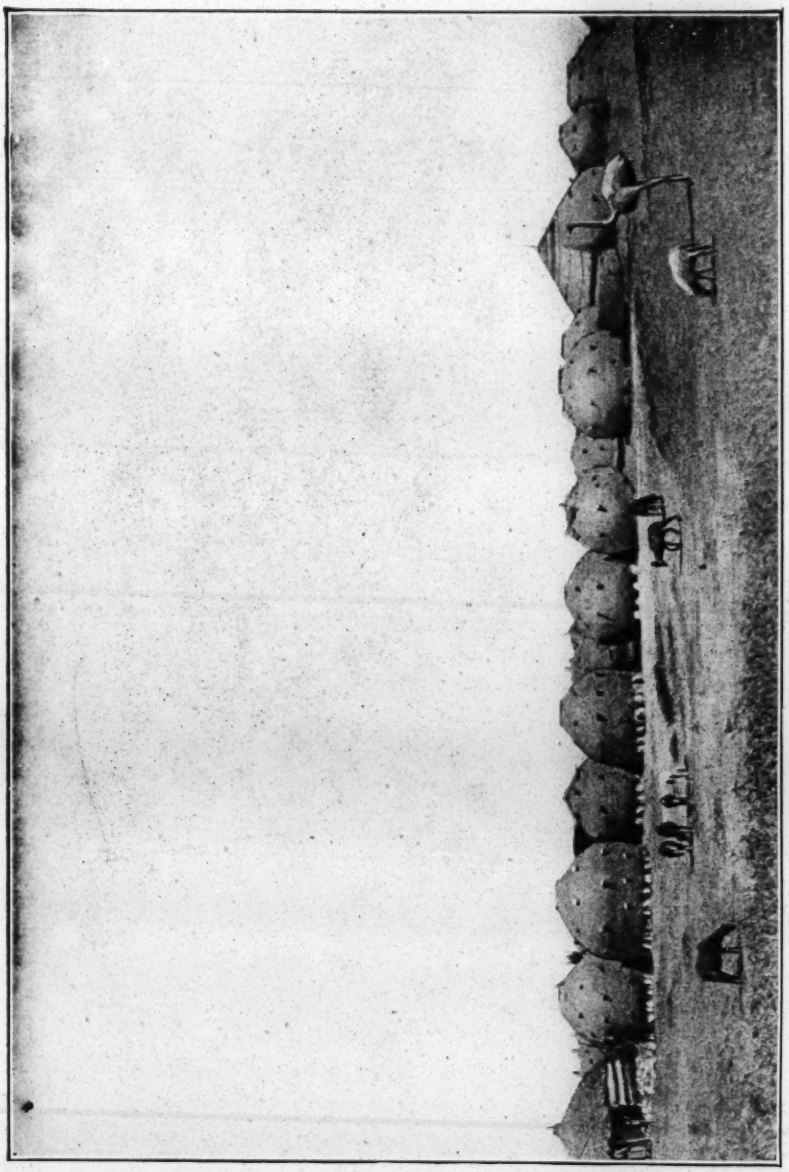
TUAREGS WITH THEIR TYPICAL FACE SCREENS (SEE PAGE 724)

buctu worth a second look. Even the three mosques were of little interest as far as the architecture went, but were, of course, interesting from the historian's point of view.

In the southern part of the city stood the *Djingery-ber,* or Big Mosque, built in the eleventh century by an Alfa marabu called Alkali-Alakeb. This mosque has inside it a series of remarkable arcades and pillars supporting a heavy mud ceiling with a flat terrace above, the whole made of white stone and clay mixed with flour of the *Baobab fruit.*

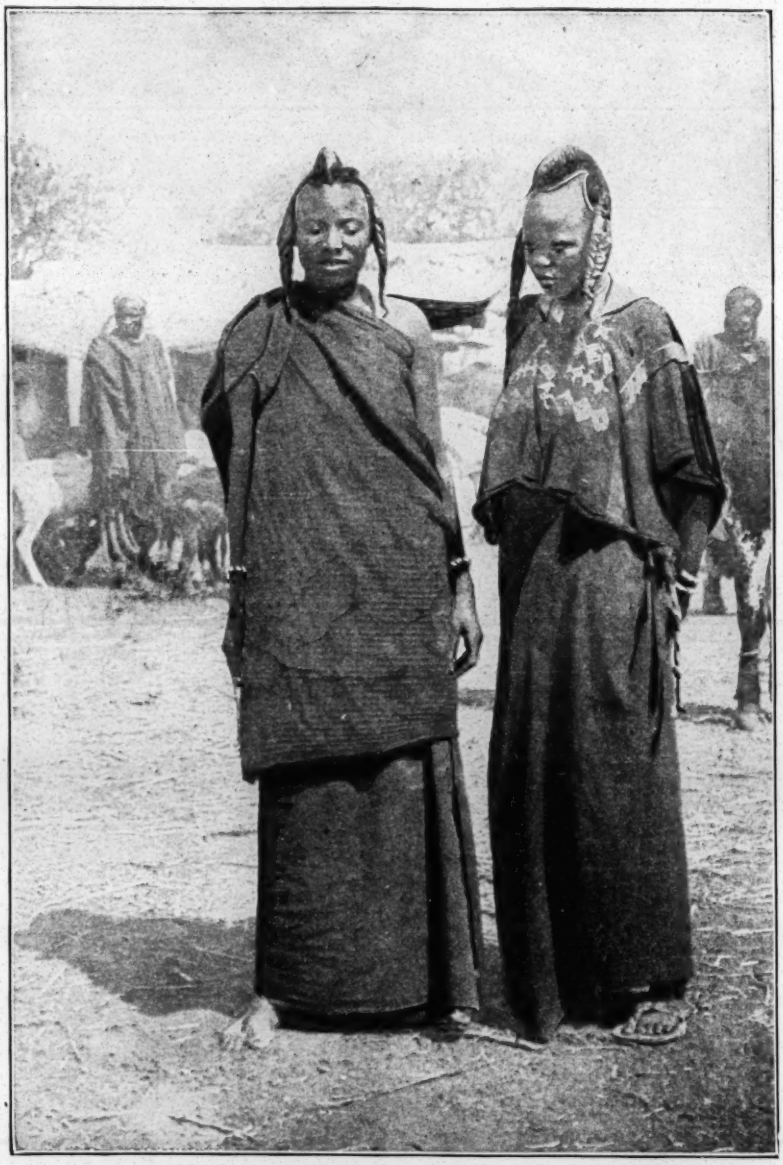
Not far from this mosque was the *yobu-ber,* or great market, by which I had entered the town, a vast rectangular square, the two sides of which showed arcades with square pillars. In these buildings merchants and peddlers had their stalls, whereas in the square itself dozens of women squatted on their haunches selling coal, wood, articles of food, cheap ornaments, etc.

Timbuctu was nothing more than a city of transit and exchange, with a fixed population of about five thousand and a floating population of some four thousand people. The floating population consisted of Arabs, Moors, and mer-

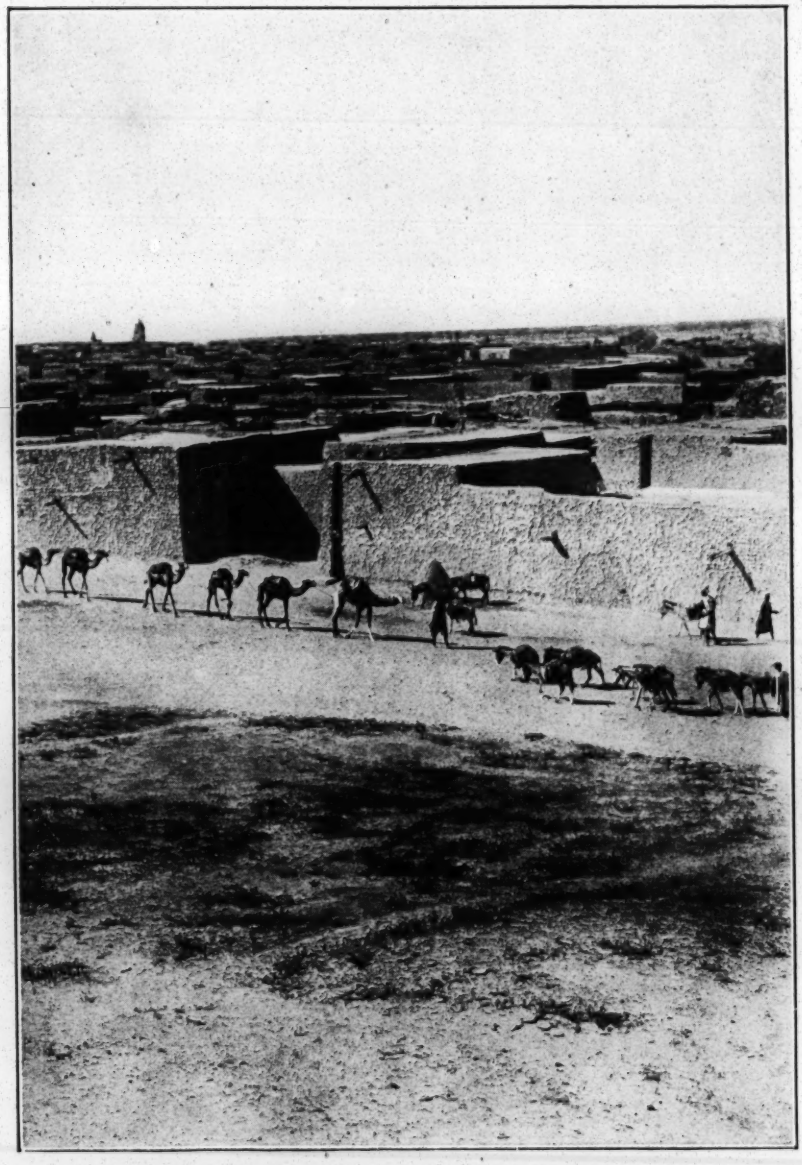


GREAT MUD BARNS FOR STORING GRAIN ON THE UPPER NIGER

These queer looking storehouses are really giant mud jars, with a small aperture at the top which is covered by mats or thatch and another hole on the side for ventilation. The latter is also used as an entrance. All the storehouses rest on supports about one foot from the ground.



HEADDRESS OF FULBEH WOMEN ON THE NIGER



CARAVAN ENTERING TIMBUCTU FROM THE NORTH

A MOOR OF TIMBUCTU

A WOMAN OF TIMBUCTU

chants from Tripoli, many from Ghadamenon, Tenduf, Tadjakant and Touat, who came every year.

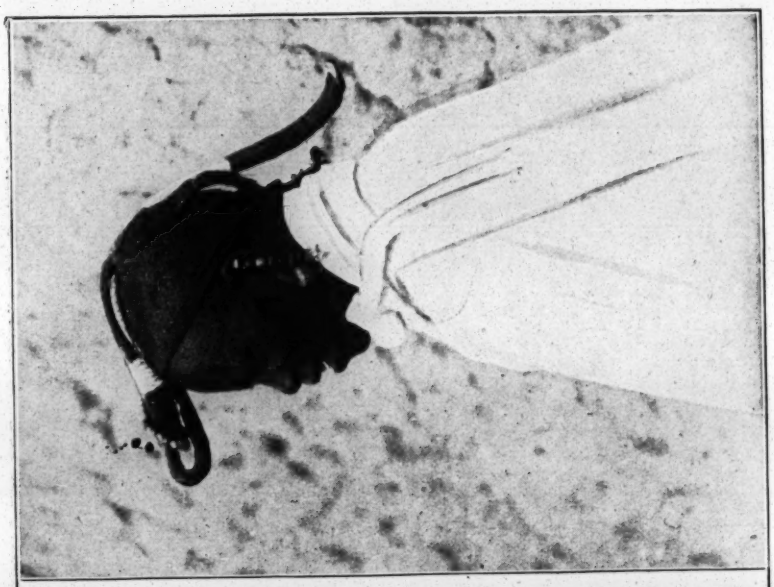
In Timbuctu we find ovens in the streets. They are constructed of mud, and are of a conical shape somewhat rounded at the top and lined inside with baked bottoms of broken earthen vases. In these ovens the natives bake their small round loaves, quite good, were it not for the quantity of sand which gets mixed with the flour of the inferior kind of wheat locally grown. The wheat is ground between two stones, the lower one larger than the upper.

These stones are imported at great expense from the mountains of Sahel in Morocco. After the flour has been coarsely ground it is passed through a thin material, and then rolled between the hands until it becomes fairly fine. Both in the big and the small market-places one sees dozens of women selling bread.

I do not think that I have ever visited a town where the varieties of headdress were so numerous and remarkable as in Timbuctu. When women were young, until the age of thirteen or fourteen, they fastened their hair into a plait which, with some additional black silk and with plenty of jewels and ornaments attached to it, stuck out behind and was called the *yellofoh* or "one tress only." From fourteen to fifteen they wore two or three queues, one behind and one in front, adding to them the fibre of the *kondji,* the plait behind being rolled up at the extremity and slightly lowered. This *coiffure,* which is called the *djnne-djnne* or "in front-in front," is also much decorated with beads and silver triangles.

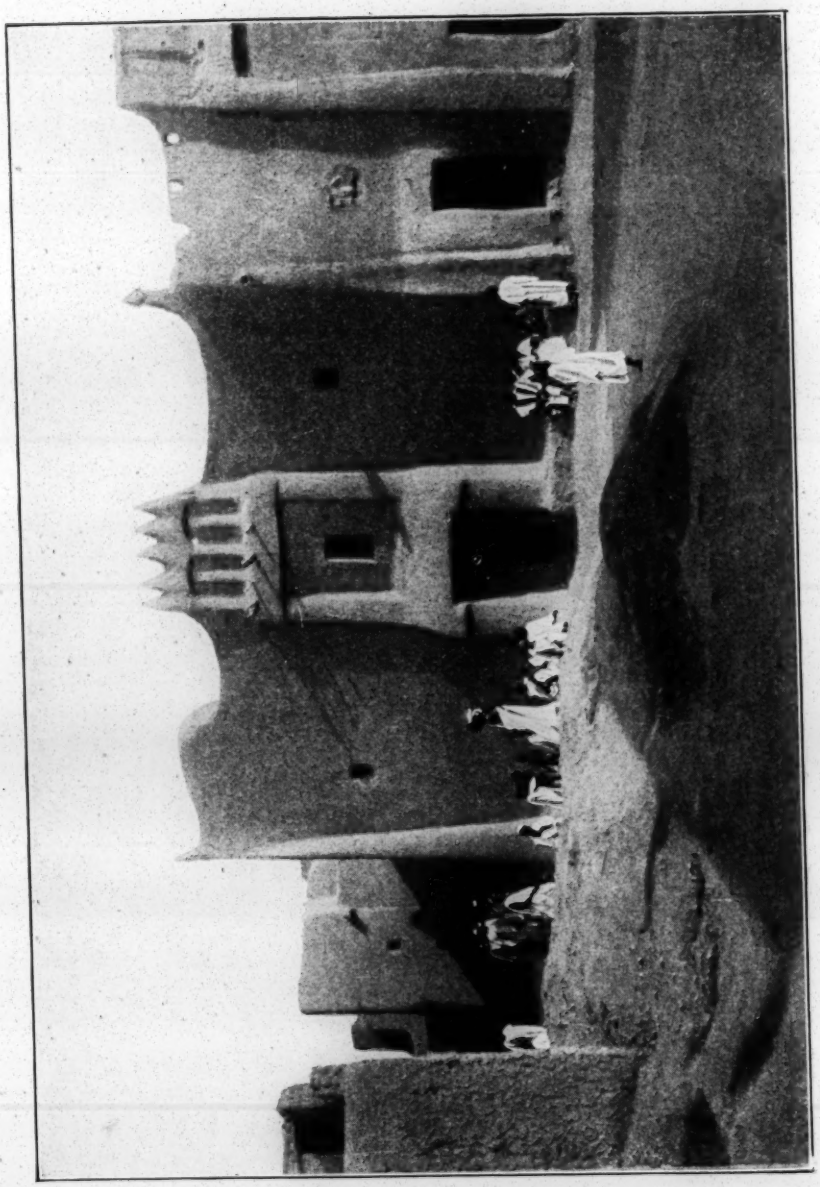
Unmarried women never showed balls of hair at the side of the head, but wore them on the top of the skull. Slaves, not married, had only one of these balls, a kind of pompom, on the right side. Most married women wore two of these pompoms, one over each ear. The two-ball arrangement for married women was a special *coiffure* fashionable in Djenne, the sister city of Timbuctu. When not in holiday dress, the girls also adorned themselves with these hair-balls, with an extra one behind the head.

Perhaps the most puzzling headdress to a male observer was the *Korbo-tchirey,* which, translated literally, mean "all sorts of rings, red," words which require explanation. They mean that the top plait, stiffened, described curves in all directions, ending in a sort of spiral at the back of the head. A triangular ornament of red imitation coral, or stone, was placed at the end of the bigger loop upon the top of the head. In other instances, two plaits were substituted for

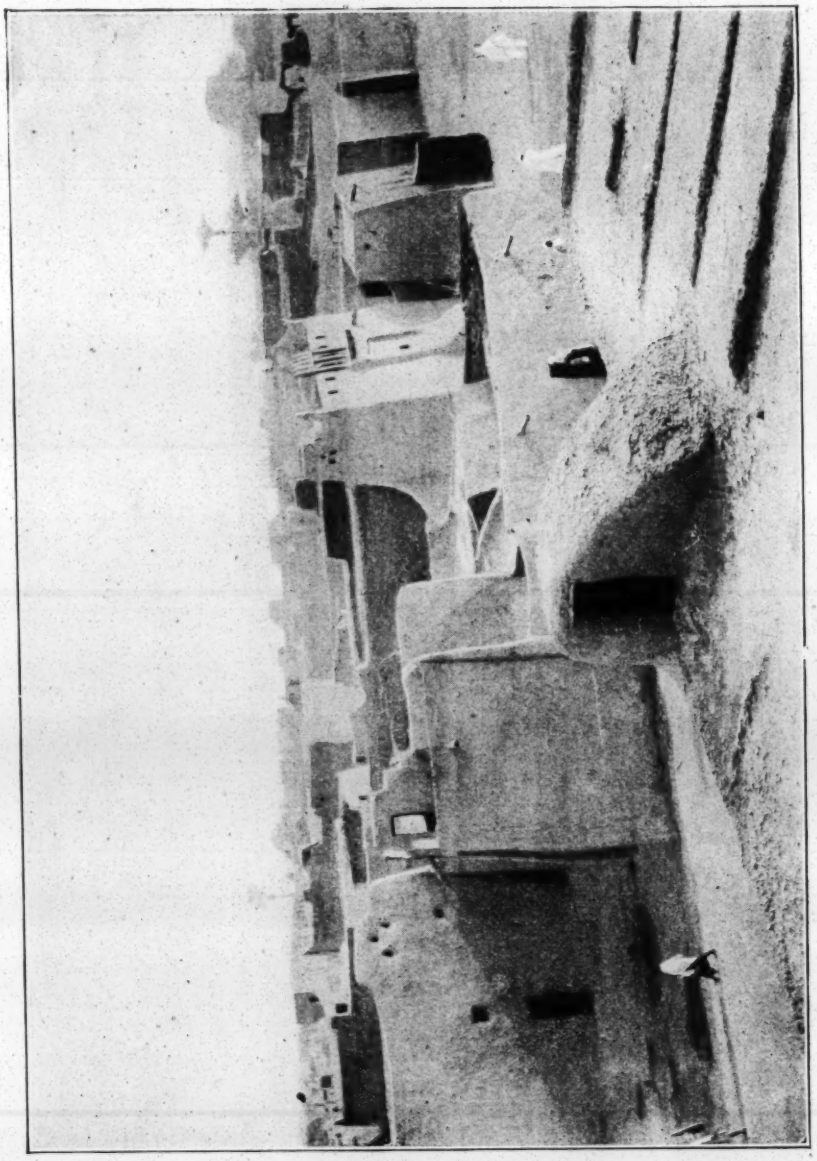


A GIRL

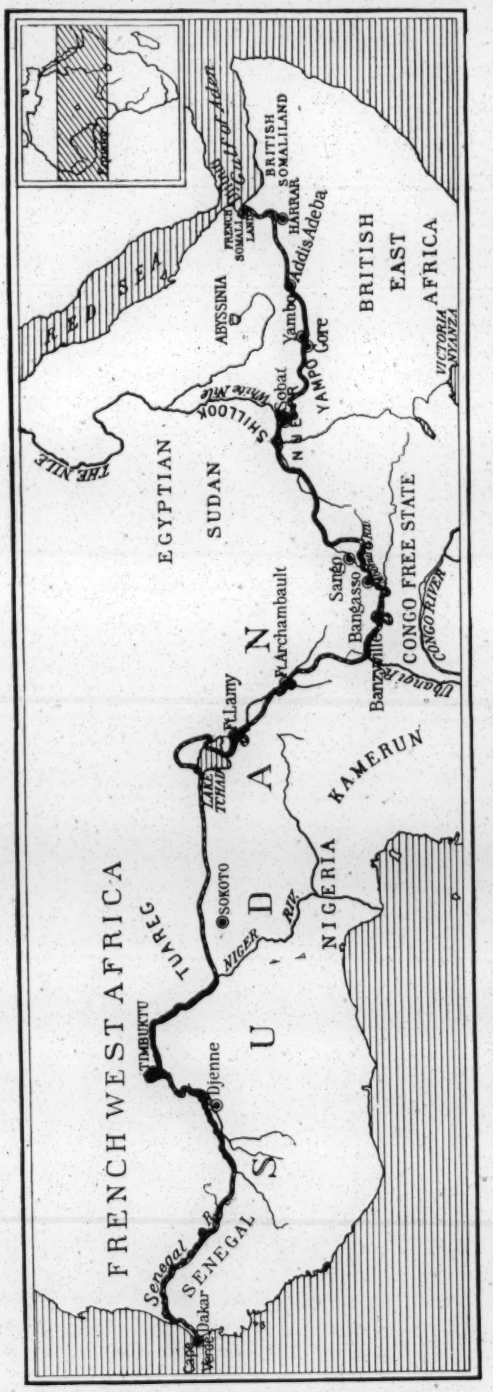
TIMBUCTU CHILDREN



A STREET IN DJENNÉ



DJENNÉ: TIMBUCTU'S SISTER CITY



the two side balls at the side of the face. A third circumscribed the forehead and turned over the right temple, where pendants were attached.

Quite unlike Timbuctu, which had a Moorish character, Djenne, her sister city, possessed marked characteristics, especially in her architecture, which reminded me forcibly of Egypt. Perhaps this architecture came with the Fulbeh. The high doorways with projecting columns right up to the top of the house, the small *musharabeah* windows between these two columns, the waterspouts from the roof, the two quadrangles at the summit of the house between square columns, and the small pyramids one above the other ornamenting the roof, were quite unlike anything I had so far met in this zone of Africa.

The streets were winding and beautifully clean. The whole place was entrancingly interesting and picturesque.

Djenne is situated in a delightful spot. Its pretty harbor for fishing boats and for canoes carrying merchandise; the charming little market-place where business is brisk; the dense population of well-to-do and well-dressed people—all contributed to making it attractive for me, who had been for a year among most inartistic natives and unpicturesque country.

The journey ended at Cape Verde. Here the French are building a great city, Dakar, which in a few years will probably be the finest city on the west coast of Africa. Long artificial piers projecting into the sea and elaborate docks have already been constructed, making a safe and deep anchorage. It will not be long before railways will connect the coast with the rich country beyond.

I climbed onto the very last rock of Cape Verde so that there should be no mistake about my having reached the most westerly point of Africa. Thus ended at this place, on January 5, 1907, the longest trans-African journey which has ever been taken from east to west.

At this point I drank in the company of the French gentleman who had accompanied me the only two bottles of cham-

pagne which I had carried the entire way across Africa. Except the cherries in rum with our friend with yellow fever in the train, this was the only stimulant I had taken during the last twelve months, and it was done to drink the success of the journey and not because I needed it.

The entire journey from Djibuti, where I had started on January 6, 1906, to this place had taken 364 days, the distance covered being no less than 8500 miles. I had arrived in flourishing health, and, although glad to return to Europe and to my friends I was indeed sorry that so delightful a journey had ended.

CONSERVATION LEAGUE OF AMERICA

By Henry Gannett

Geographer of the United States Census

OUR readers will recall the historic assemblage of the governors of the states at the White House, last May, to consider the subject of our waning natural resources and to take steps looking toward their conservation for future generations. It was a notable gathering. The governors of nearly all the states were present, and with them were leading statesmen, publicists, economists, engineers, and geologists. The assemblage was presided over by the President of the United States. The utmost unanimity prevailed, and a set of resolutions was agreed to declaring that every effort consistent with the necessary use of our resources should be made to preserve them for future use.

Shortly after this meeting the President appointed a National Conservation Commission, composed of four committees, one each on Waters, Lands, Forests, and Minerals, the chairman of the Commission being Mr. Gifford Pinchot, Chief Forester, who had taken the leading part in starting the movement. Many of the states also have appointed conservation commissions to coöperate with the National Commission.

This National Commission has commenced the task of taking an account of stock of the country's resources in water, land, forests, and minerals, in order, not only to know what we have, but how long, under the probable future rates of consumption, the supplies will last. With this are proceeding also studies of the best means whereby the drain may be lessened without injury to our industries, where waste may be stopped or reduced, and where products may be utilized more fully.

Some of the matters now under study are: Under the head of water, the amount of rainfall, the amount and character of the stream flow, the possibility of improvement of our streams for navigation, under comprehensive plans, the prevention of floods, the present and possible future development of water power, irrigation, etc.; under the head of lands, the status of the Federal land laws, the condition of our soils and their possible improvement to meet the increasing demands of the future, the additional amounts which can be put under cultivation, the condition of our public grazing lands and the steps which may best be taken for their improvement, the extent of our swamp lands and the result of draining them, etc.; under the head of forests, the amount of standing timber remaining to us and the rate at which it is being depleted, the best methods of restricting the cut, preventing destruction by fire and other enemies and of restocking the cut and burned areas, the relations of forests and streams, and many other allied matters; under the head of minerals, the supply in the ground of each ore and mineral and the rate at which these supplies are being exhausted, with studies of the best means of prolonging the supply.

The supply of game and fish and the rate of their destruction, with the methods

in use for their protection and restocking, and many other matters are under study which cannot be recapitulated here.

These studies are being made by scientists in the various bureaus of the Federal government, aided by officers of the state governments and state conservation committees. Prominent among the bureaus enlisted in the work are the Census, the Forest Service, the Bureau of Corporations, those of Statistics of the Departments of Agriculture and of Commerce and Labor, those of Plant Industry and of Soils, the office of Experiment Stations, General Land Office, Reclamation Service, and Weather Bureau.

The National Conservation Commission will meet early in December and receive a preliminary report on these matters, and later a second conference of the state governors will be held in Washington.

The work of the National Conservation Commission will consist mainly:

1st. In the collection and digestion of information concerning our resources. So far its work is commercial, or, better, economic geography.

2d. In the dissemination widely of this information, together with advice and suggestions as to the methods of conservation, and thus to cultivate public sentiment in the practice of economy in our resources.

3d. In so shaping legislation, both national and state, as most fully to carry out these ends of conservation.

In order to aid in this work an association of great organizations is being formed, known as the Conservation League of America, best described in the following letter of invitation to the National Geographic Society:

WILLIS L. MOORE, President National Geographic Society, Washington, D. C.

DEAR SIR: The recent conference of governors of the various states of the Union, together with many eminent men and representatives from a number of our great non-political organizations, which convened at the White House last May, has forcibly directed public attention to the decisive part which the intelligent development and wise conservation of our natural resources should and must play in the future of the nation.

As a result of the unanimous action there taken the President has appointed a National Conservation Commission to investigate and report upon the character, value, and extent of our existing natural resources, and this officially constituted Commission will undoubtedly accomplish a work of much permanent value.

The conference also served to emphasize, what has long been a growing conviction with many, that there should be some means of bringing into closer relation and more intelligent coöperation the unofficial associations which have a common interest in the broader aspects of the conservation movement.

It is apparent that such coöperation must be confined to those general aspects of the subject which are common to all of the existing organizations, and that the special and particular functions and activities of each association must not be interfered with, impaired or in any way affected. What is needed is simply that degree of general coöperation of all which will assist and make more effective the special work of each.

After conferring with the representatives of some of these associations, the National Rivers and Harbors Congress has undertaken to initiate such coöperation by inviting similar organizations to unite with it in forming the Conservation League of America, the sole purpose and function of which is embraced in a declaration of principles which is herewith enclosed. To carry on its work, a central headquarters is to be opened in Chicago, from which shall be conducted a campaign of publicity. . . .

The plan of organization and work has been submitted to President Roosevelt and to the Hon. William H. Taft and the Hon. William J. Bryan. It has not only been approved by them, but President Roosevelt has accepted the honorary presidency of the League and Mr. Taft and Mr. Bryan have consented to serve as honorary vice-presidents. Mr. Walter L. Fisher, of Chicago, has been chosen as president of the League, and representatives of organized labor and of organized capital will act as vice-presidents, spokesmen for both these interests having expressed hearty approval.

It will be seen that the new organization is, as it should be, absolutely non-partizan, both politically and industrially.

We cordially invite your organization to unite with the League. No financial obligation will be involved, as all funds necessary for the work to be undertaken have been kindly provided from voluntary contributors who are interested in it, and it involves no commitment of your association beyond the purposes declared. . . .

If you approve of the plan, kindly permit us to enroll your organization as a member of the League, and to use its name as such. Inasmuch as prompt action is essential to the suc-

cess of our movement, you are earnestly requested to reply at the earliest possible date.

Respectfully yours,

JOS. E. RANSDELL, *President.*

J. F. ELLISON, *Secretary.*

CONSERVATION LEAGUE OF AMERICA—STATEMENT OF PRINCIPLES.

Whereas, it is of the utmost importance that the natural resources of the nation shall be comprehensively and vigorously developed and utilized for the promotion of the public welfare without waste, destruction, or needless impairment, and subject always to their intelligent conservation and the effective preservation of the rights and interests of the future generations of our people.

Now, therefore, to secure the recognition and support of these principles by the people and by their representatives we hereby unite in a National Conservation League, and adopt for ourselves the following, taken directly from the declaration unanimously adopted by the conference of governors, convened by the President of the United States in the White House at Washington, May 13, 14, and 15, 1908.

We do hereby declare the conviction that the great prosperity of our country rests upon the abundant resources of the land chosen by our forefathers for their homes, and where they laid the foundation of this great nation.

We look upon these resources as a heritage to be made use of in establishing and promoting the comfort, prosperity, and happiness of the American people, but not to be wasted, deteriorated, or needlessly destroyed.

We agree that our country's future is involved in this: That the great natural resources supply the material basis upon which our civilization must continue to depend, and upon which the perpetuity of the nation itself rests.

We agree that this material basis is threatened with exhaustion.

We agree that the land should be so used that erosion and soil wash shall cease, and that there should be reclamation of arid and semi-arid regions by means of irrigation, and of swamp and overflowed regions by means of drainage; that the waters should be so conserved and used as to promote navigation, to enable the arid regions to be reclaimed by irrigation, and to develop power in the interests of the people; that the forests which regulate our rivers, support our industries, and promote the fertility and productiveness of the soil should be preserved and perpetuated; that the minerals found so abundantly beneath the surface should be so used as to prolong their utility; that the beauty, healthfulness, and habitability of our country should be preserved and increased; that sources of national wealth exist for the benefit of the people, and that monopoly thereof should not be tolerated.

We declare our firm conviction that this conservation of our natural resources is a subject of transcendent importance which should engage unremittingly the attention of the nation, the states, and the people in earnest cooperation.

We agree that this coöperation should find expression in suitable action by the Congress and by the legislatures of the several states.

Let us conserve the foundations of our prosperity.

This invitation has been accepted by the Board of Managers, provided that the organization shall be, as stated, "absolutely non-partisan, both politically and industrially."

The Magazine will keep our members fully advised of the work of the National Conservation Commission, and it is believed that our members will render all possible assistance to the ends and aims of the Commission.

A COMPARISON OF OUR UNPROTECTED WITH OUR PROTECTED FORESTS

NOTHING better emphasizes the necessity for the preservation of our natural resources than the great forest fires which have been so widely distributed throughout the country and have played such havoc this summer. It is doubtful if the losses for the year 1908 will ever be fully known, but a conservative estimate places the aggregate loss in all parts of the country at not less than $20,000,000.

In nearly every instance these devastating fires might have been prevented if the various states had provided an adequate number of men to patrol the woods and arrest all such fires in their incipiency, and if lumbermen and other users of the forest were careful to dispose of brush after logging, so as to prevent the spread of fires.

The Forest Service has had a lot of work to do on the national forests in the fire-fighting line this year, but the work has shown good results. Exclusive of the salaries of forest officers, the work of putting down fires on the national forests for the year has cost the government

$30,000. This means protecting approximately 168,000,000 acres. The value of the timber destroyed will not be known until the fire reports are made at the end of the year, though it is estimated that it will be larger than last year. But it will be insignificant when compared with the appalling fire losses outside of the national forests, on unprotected areas, or with the destruction which would have come to the timber in the national forests had they not been protected.

These results have come through the increased efficiency of fire patrol and methods of fighting fire and through the coöperation of settlers and users of forests who understand that the forests are their property and that a loss from fire is a personal one.

After timber is cut the regulations require brush to be compactly piled at a safe distance from living trees. Sometimes this brush is burned under direction of a forest officer; but even if it is allowed to stand, no fire that starts finds fuel by which it can spread.

In order to provide rapid means of travel between the various parts of the national forests and to facilitate the massing of large forces of men to fight fire, as well as to furnish vantage points from which the fires may be fought successfully, 160 miles of road and 3,300 miles of trail were built during the last fiscal year. In several cases fire-breaks from 16 to 100 feet in width have been constructed, from which all timber and inflammable material is removed, to furnish obstacles to the spread of fire, or straight lines of defense in fighting the fire once started. Several miles of such fire-breaks now exist on the national forests in southern California, where it is especially important that the forest cover on the watersheds of important irrigation streams be protected.

Just as rapidly as possible each national forest is supplied with shovels, axes, and other tools, which are distributed over the forests, and cabins and tool-boxes are placed at points where there is the greatest danger of fire and where they can be easily reached by trail. Field glasses are also furnished, since their use in discovering small fires at a considerable distance has proved very helpful.

Upon the basis of the Forest Service experience on the national forests, on which the total administration per acre, including fire patrol, amounts to only one cent, the whole forest area of the United States could be protected from fire at a total cost of less than $3,000,000. This would save an annual loss of $20,000,000 for timber alone, to say nothing of the enormous loss of life, the loss to new tree growth, the loss of soil fertility, the damage to river courses and adjacent farm country, and the depreciation in forest wealth and land values.

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EDITED BY

N. W. THOMAS, M. A.
Author of "Natives of Australia," "Kinship and Marriage in Australia," etc.

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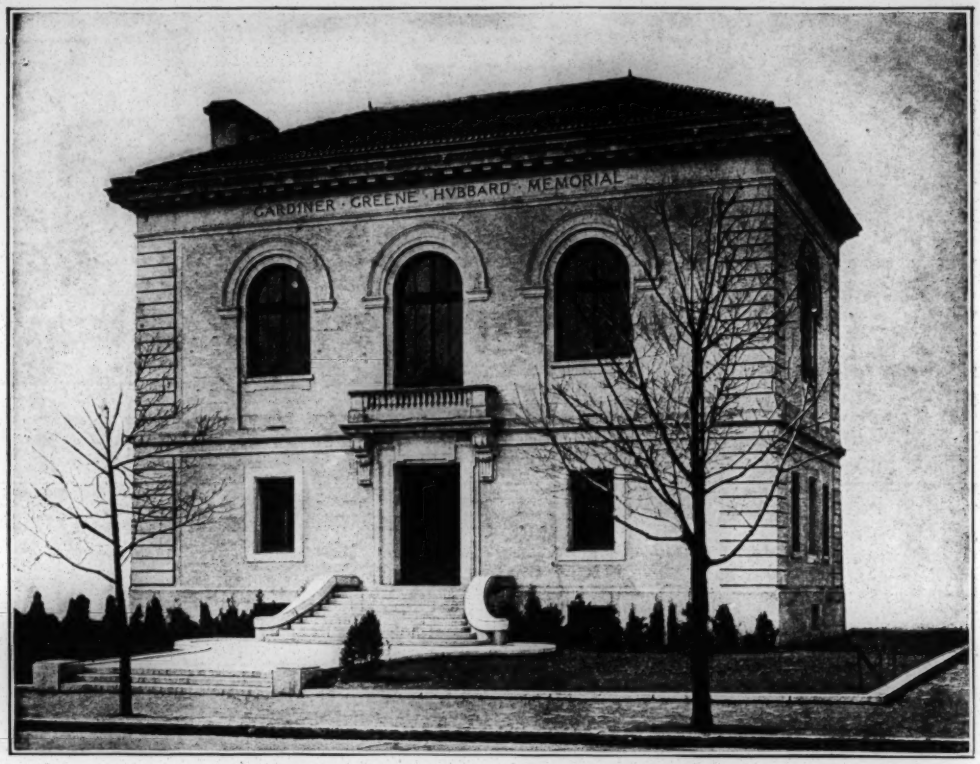

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